

FIG. 1

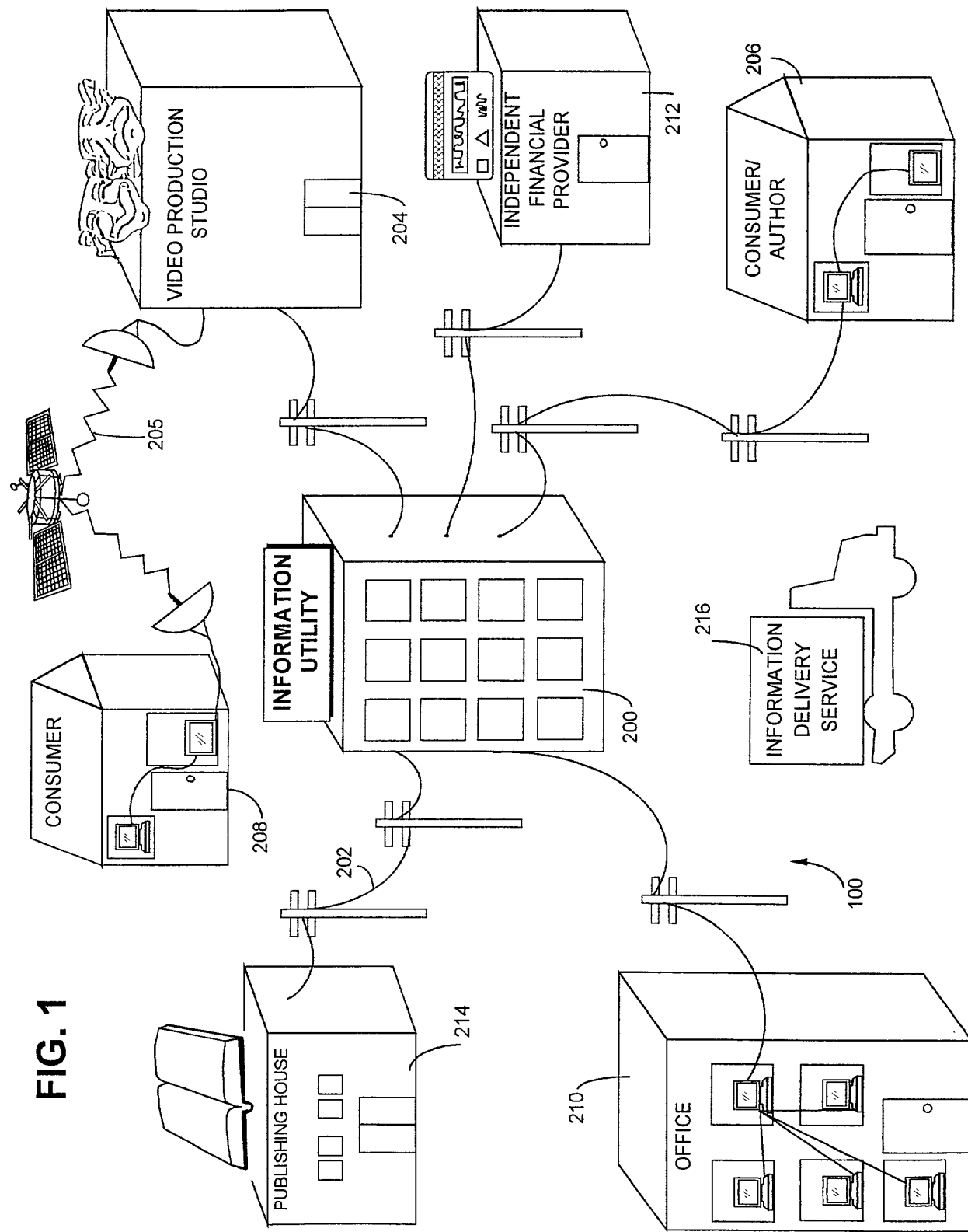
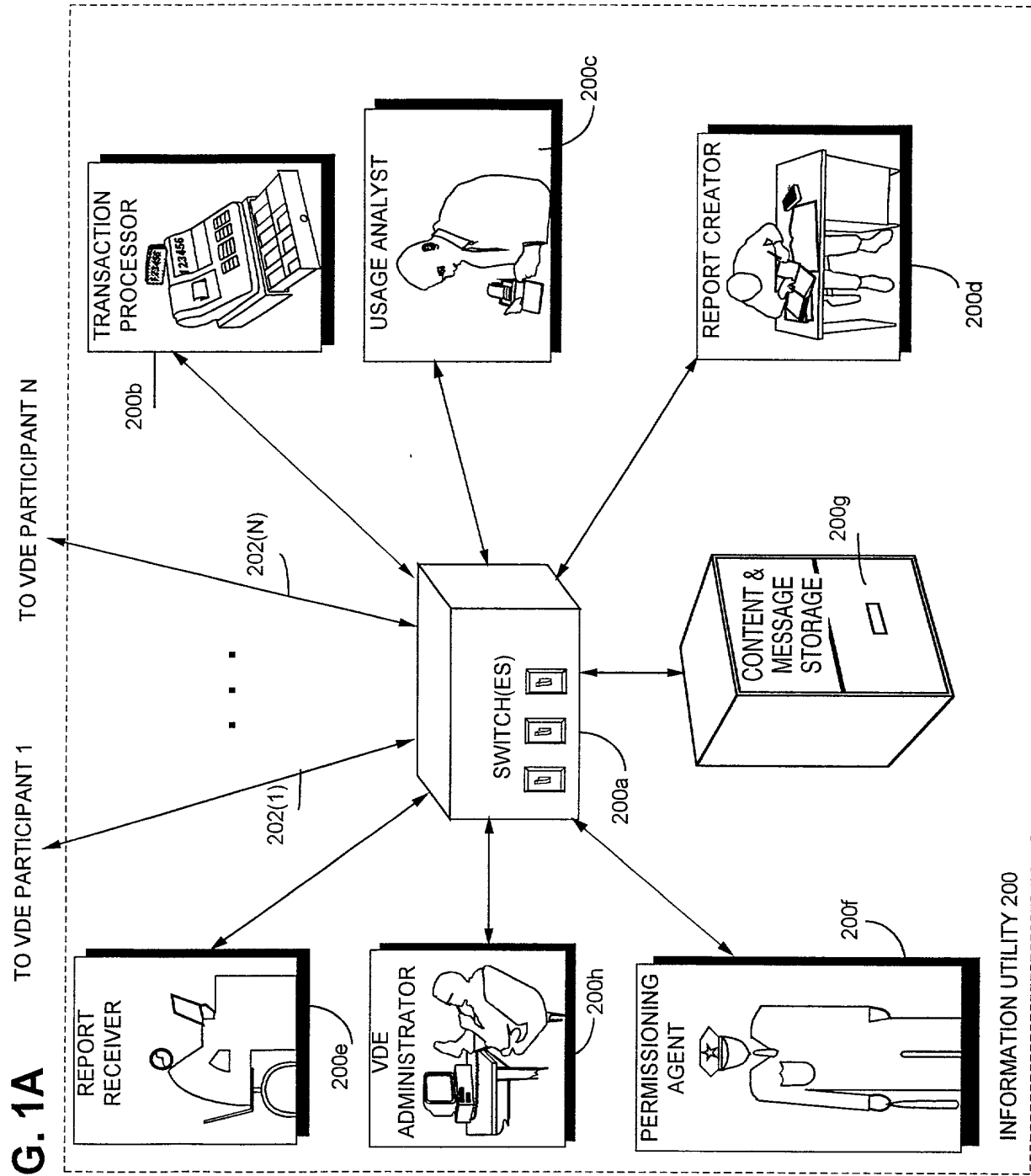


FIG. 1A



706470"0/E49/60

FIG. 2

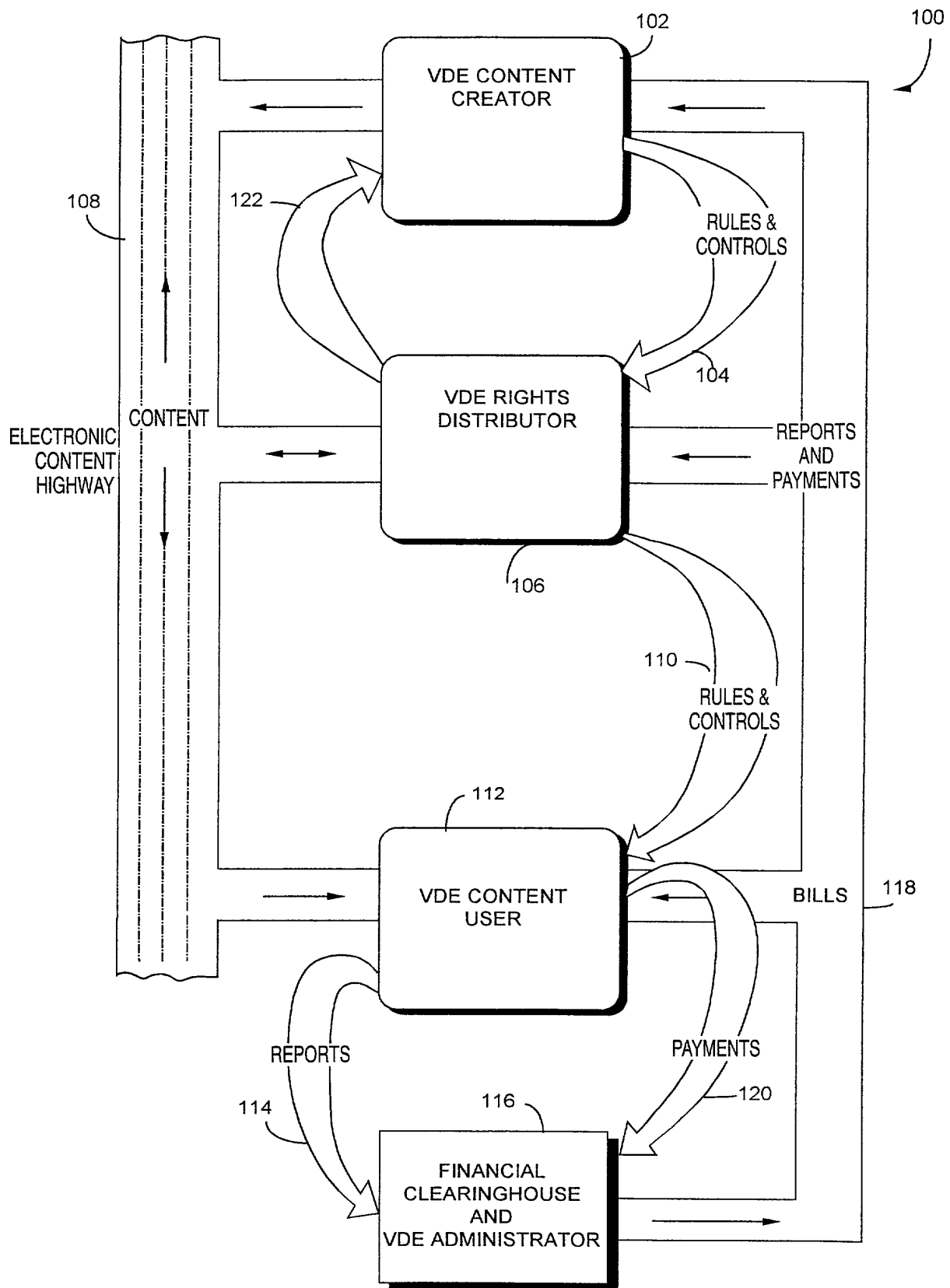
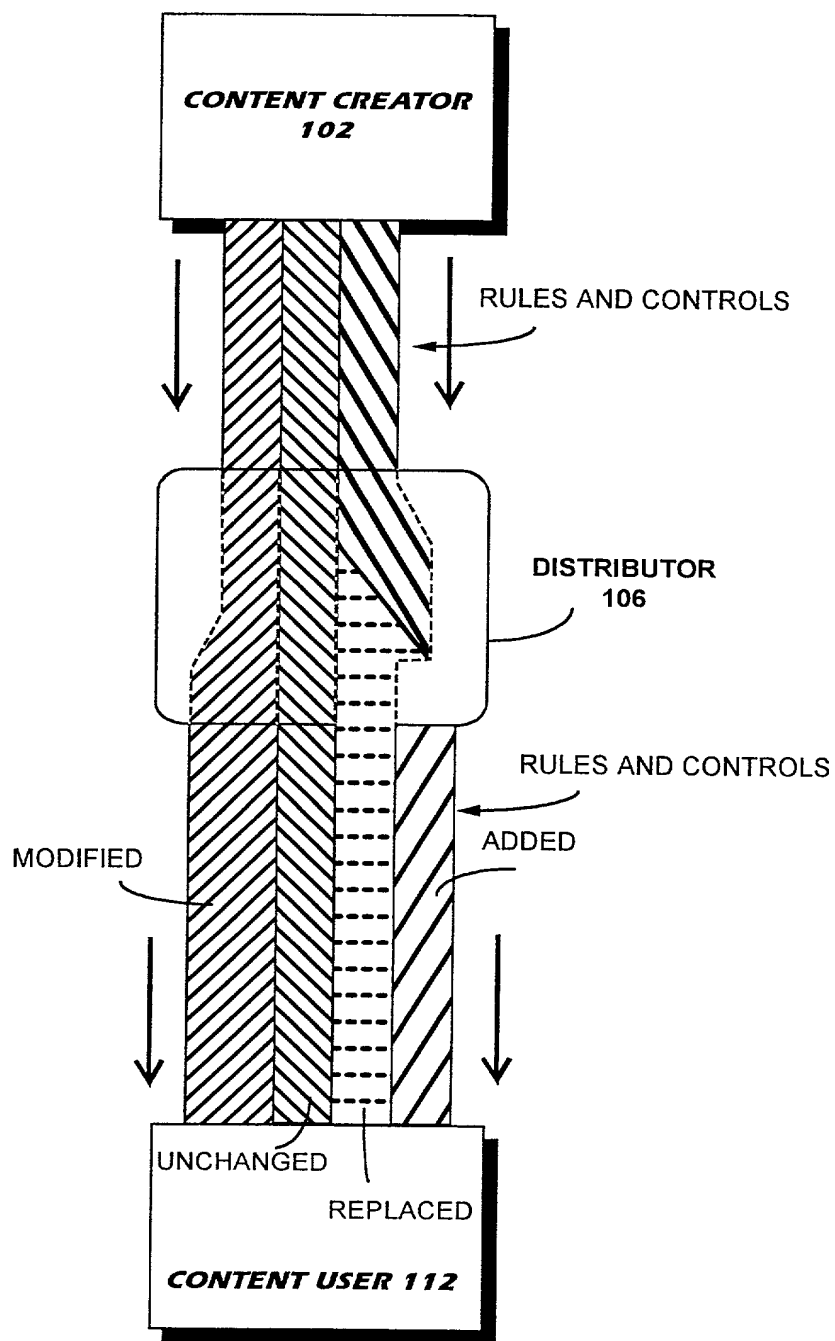
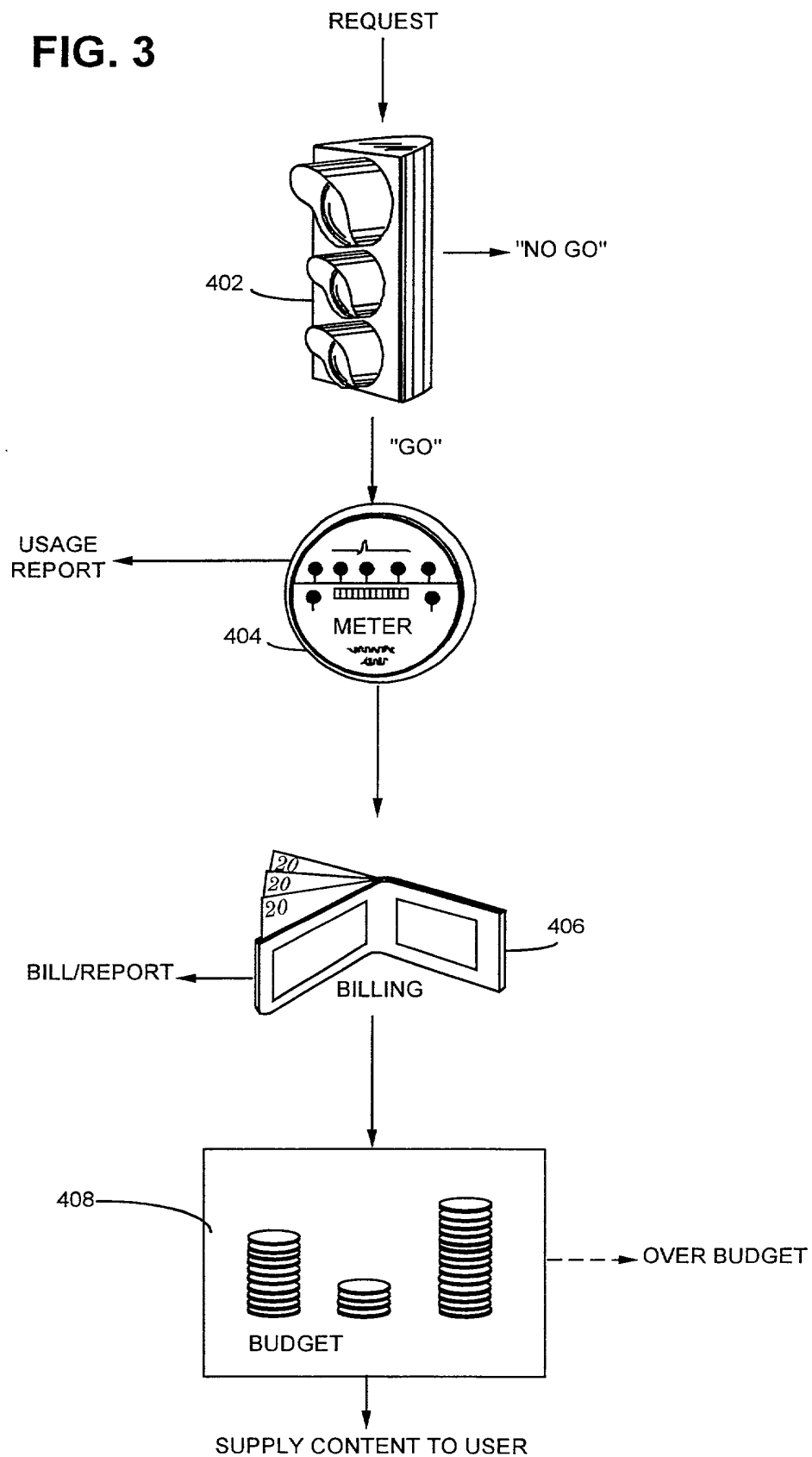


FIG. 2A



09764370.072301
T0E270"02E49/50

FIG. 3



00764370.072301
1002270 0249260

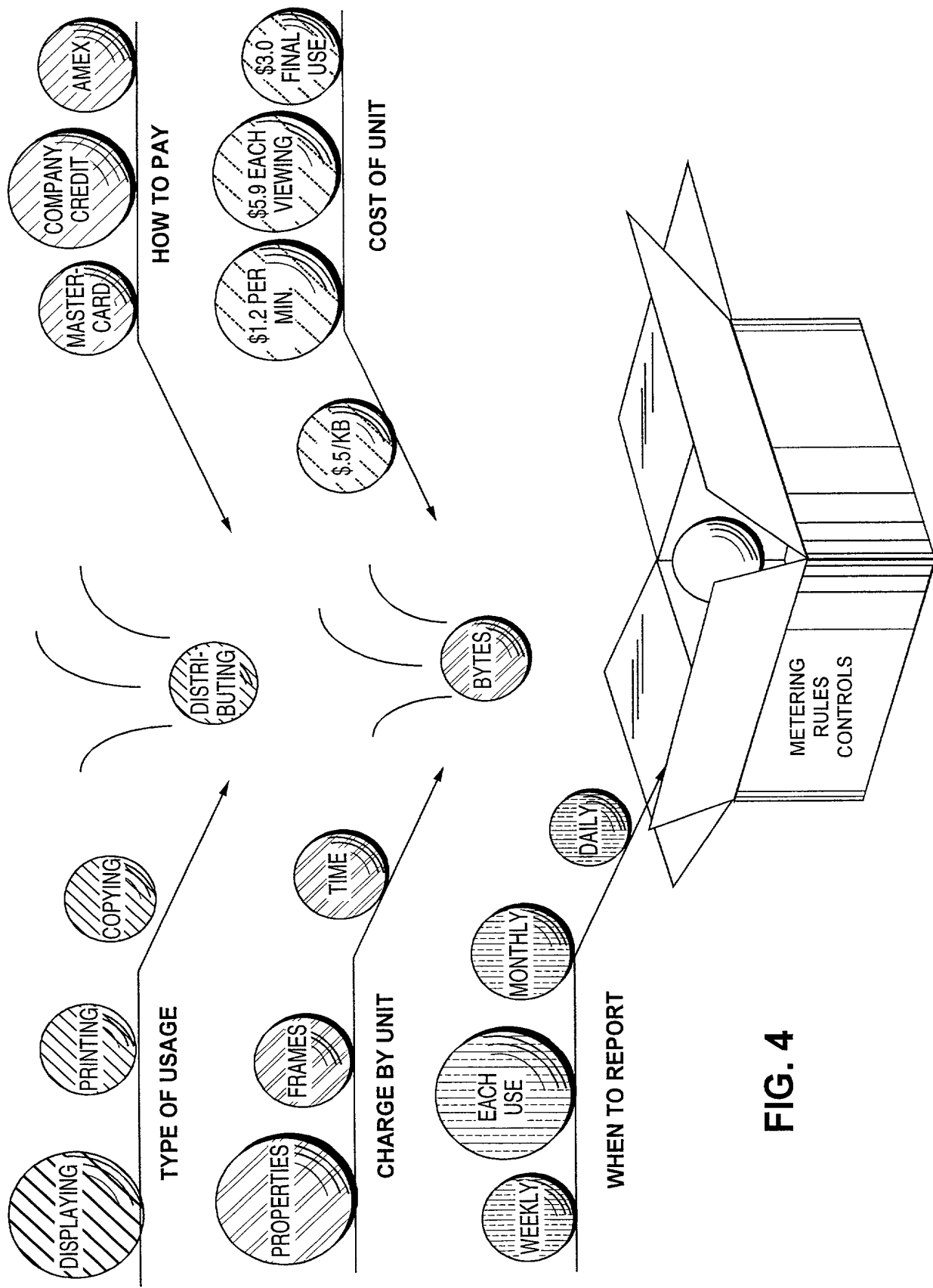


FIG. 4

FIG. 5A

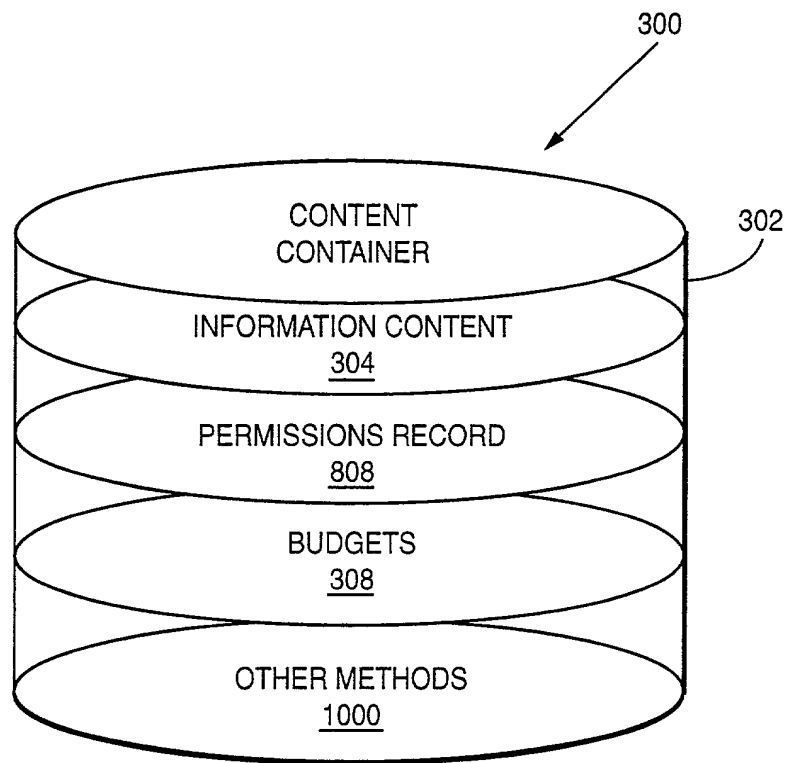
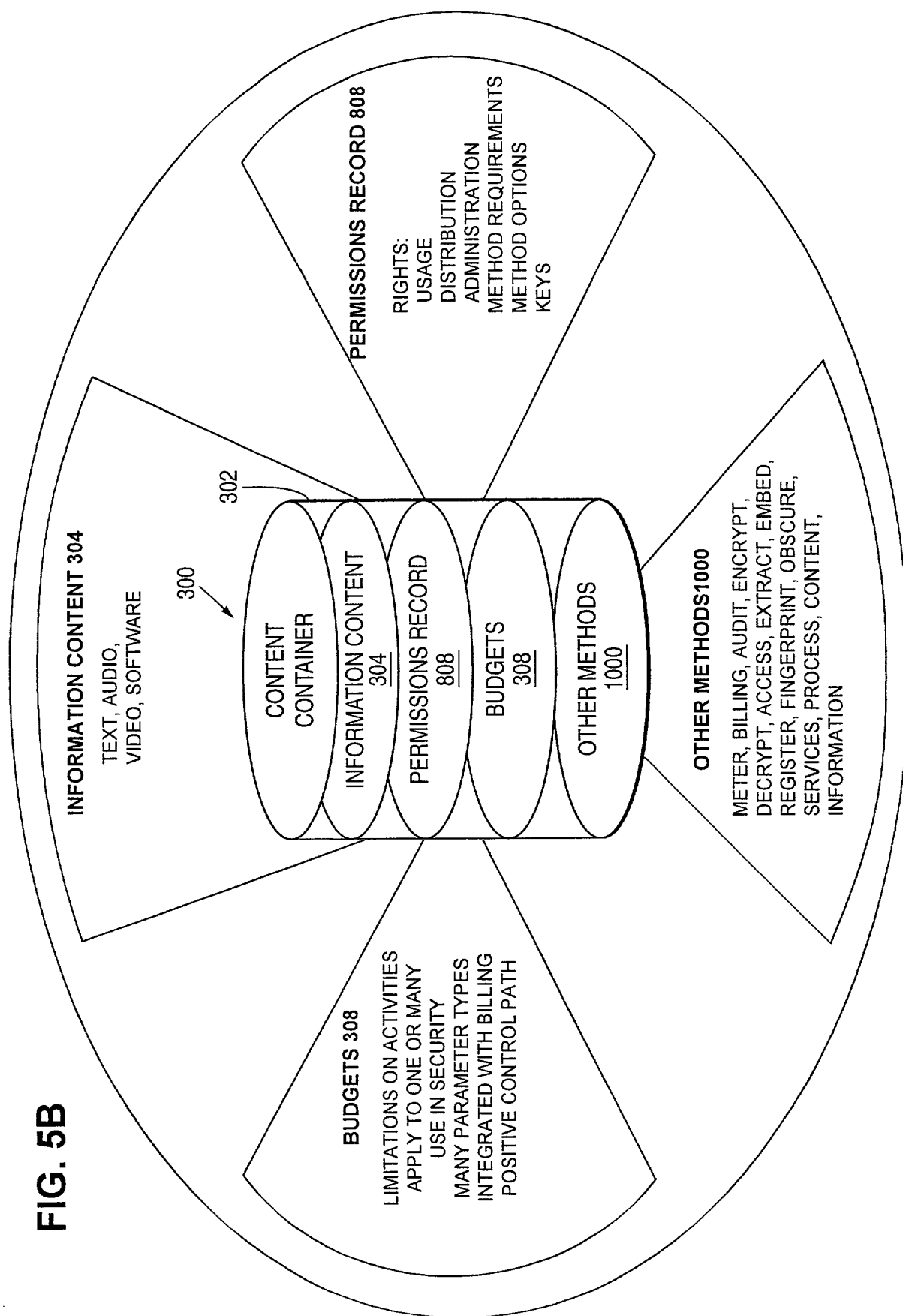
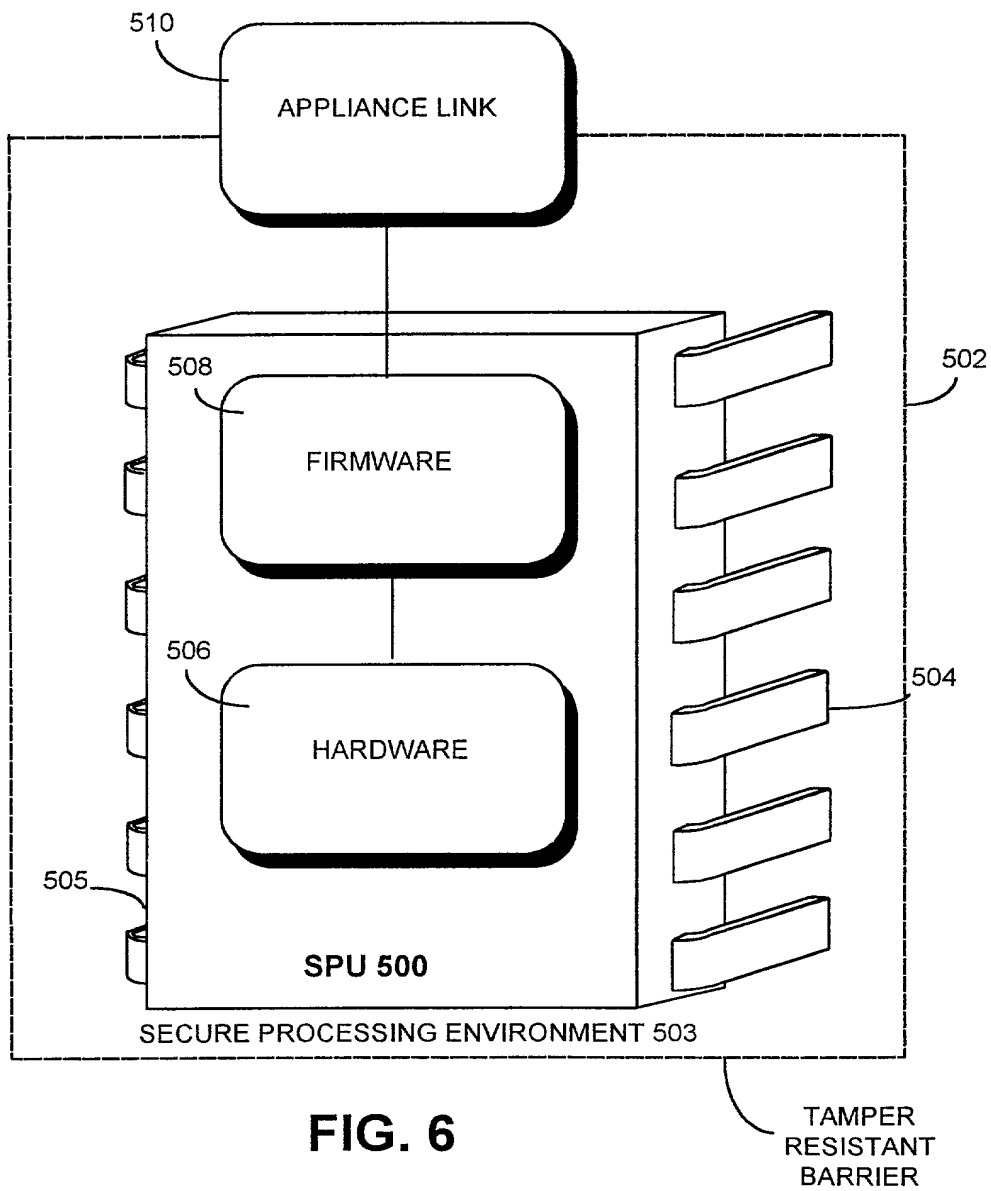


FIG. 5B





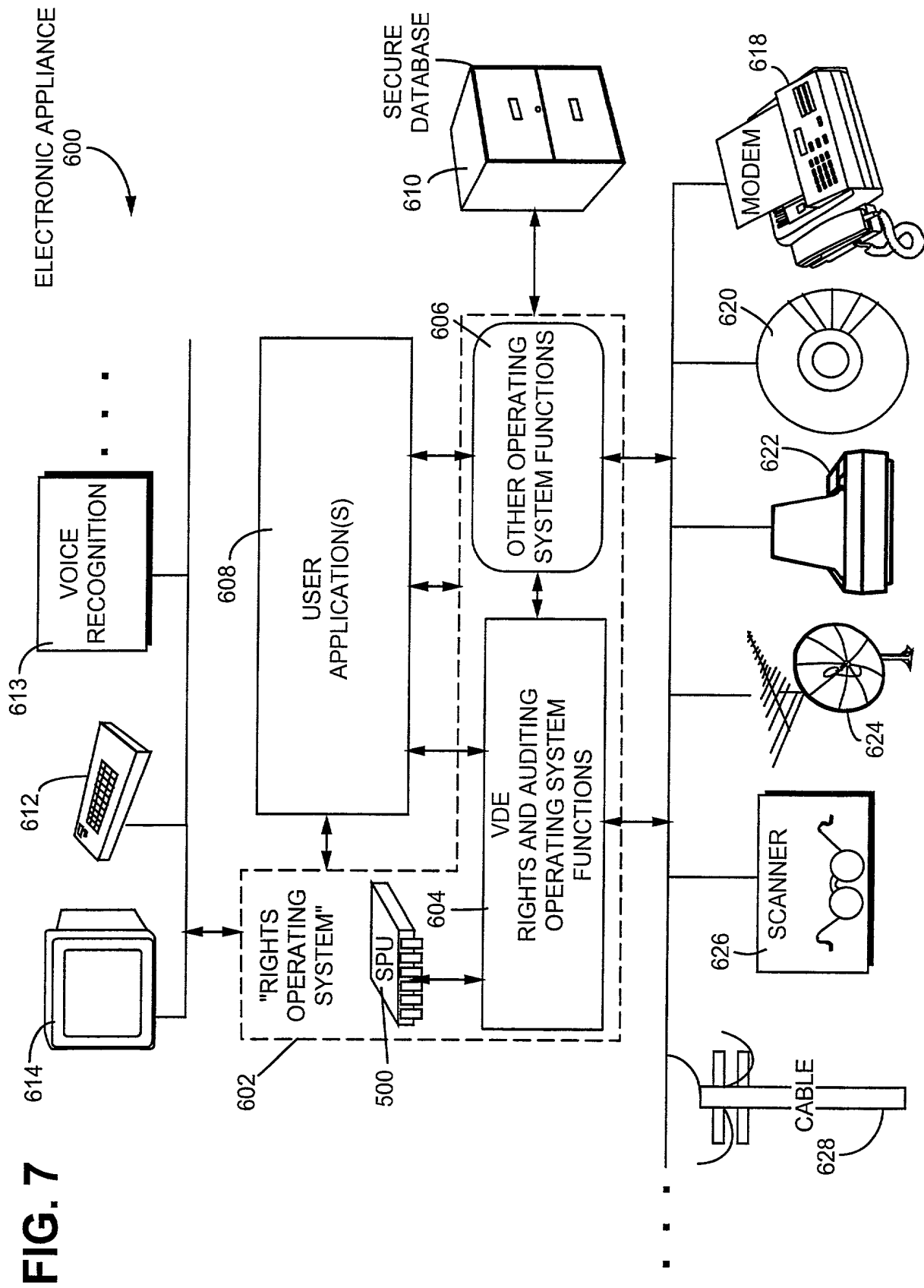
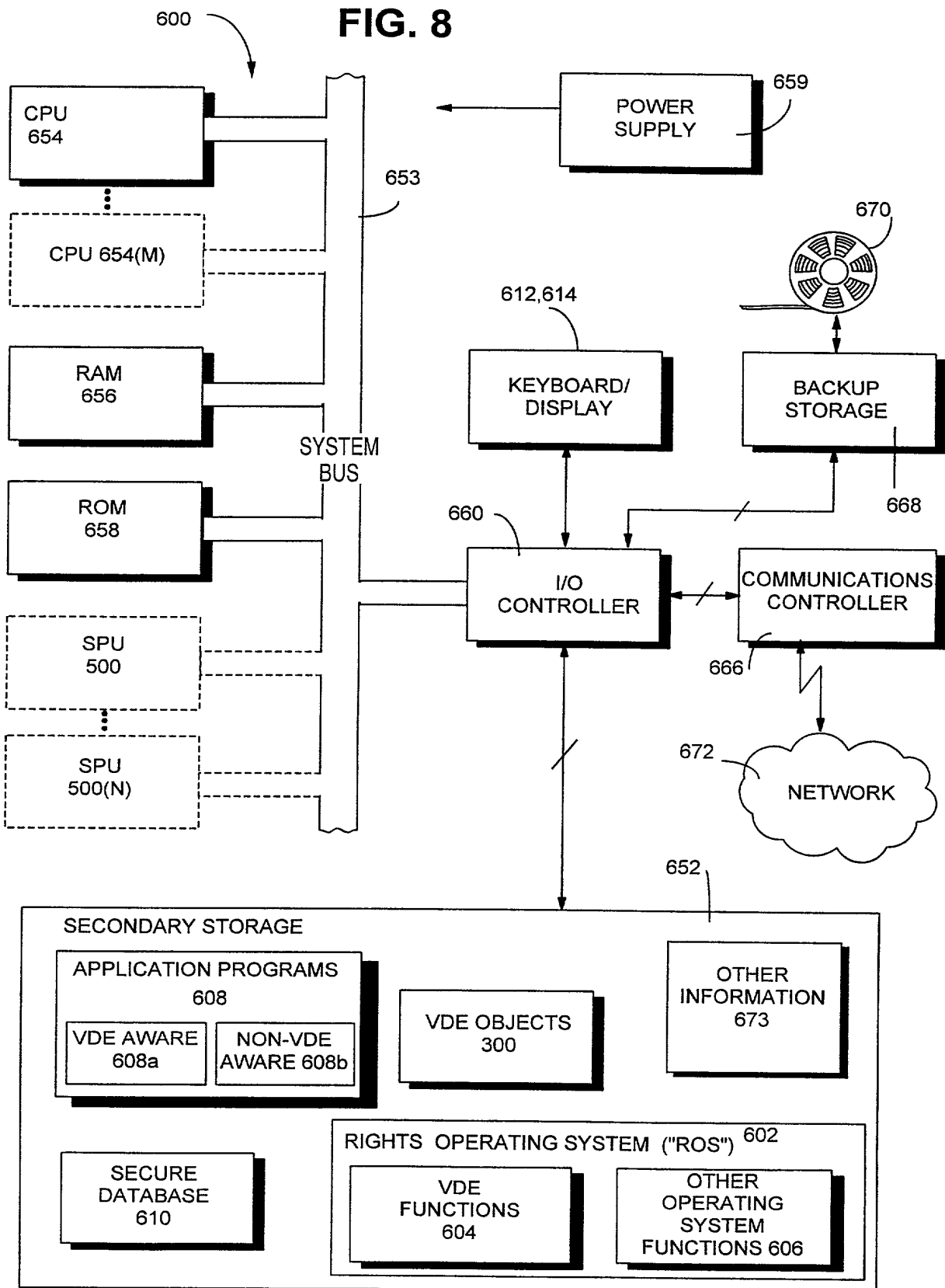


FIG. 8



09761370.072301

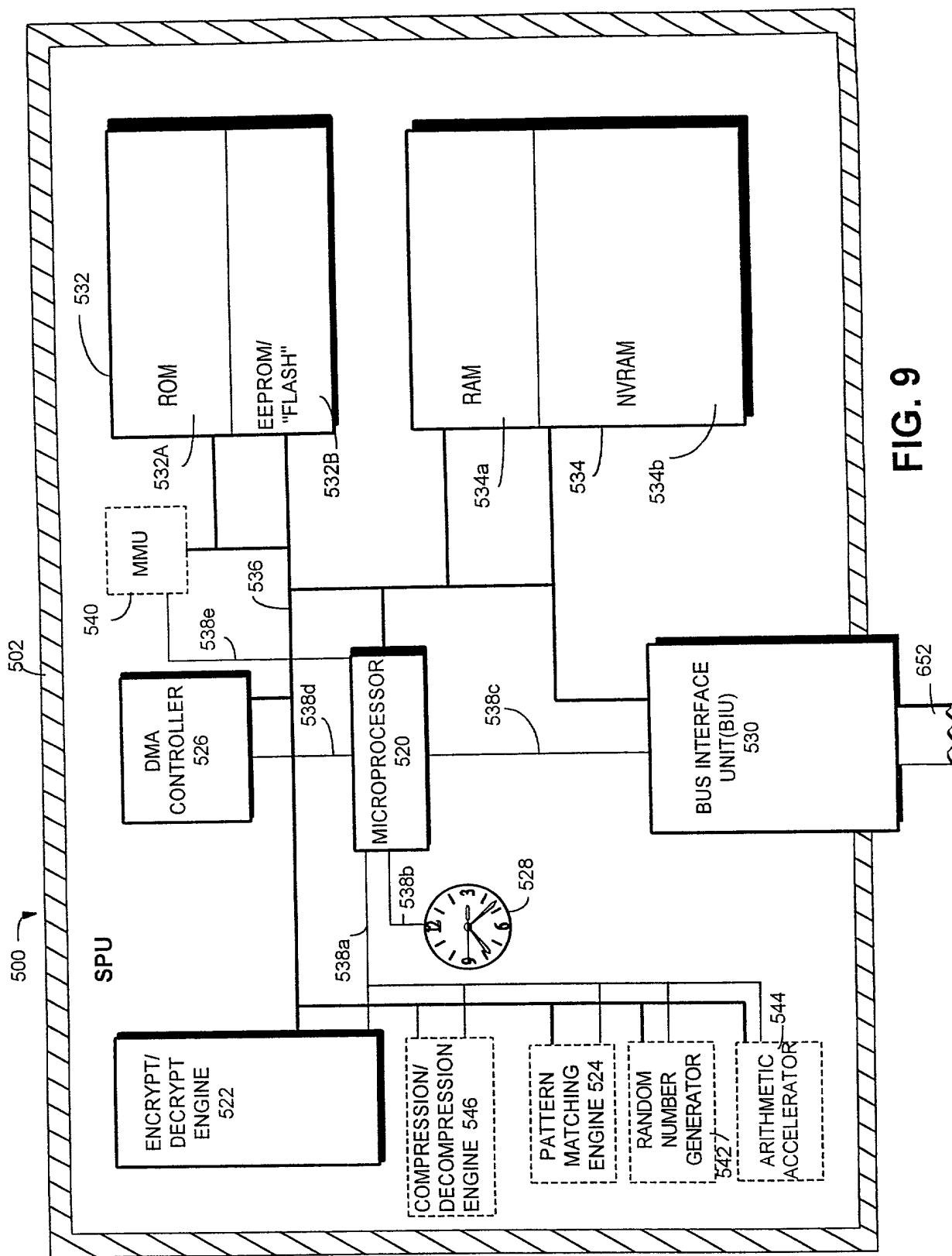


FIG. 9

FIG. 11A

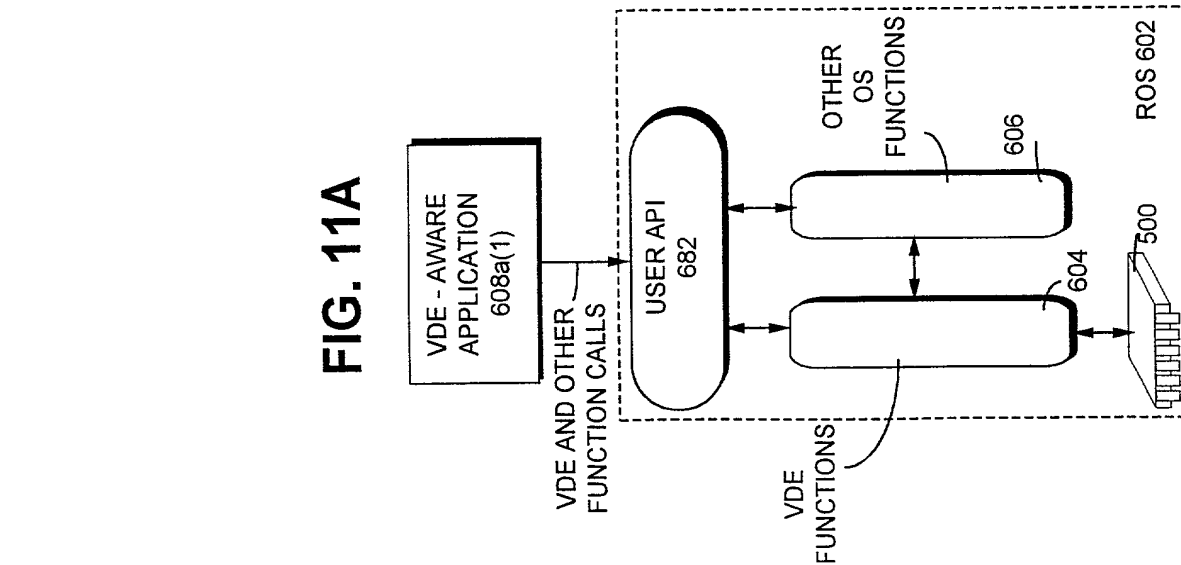


FIG. 11B

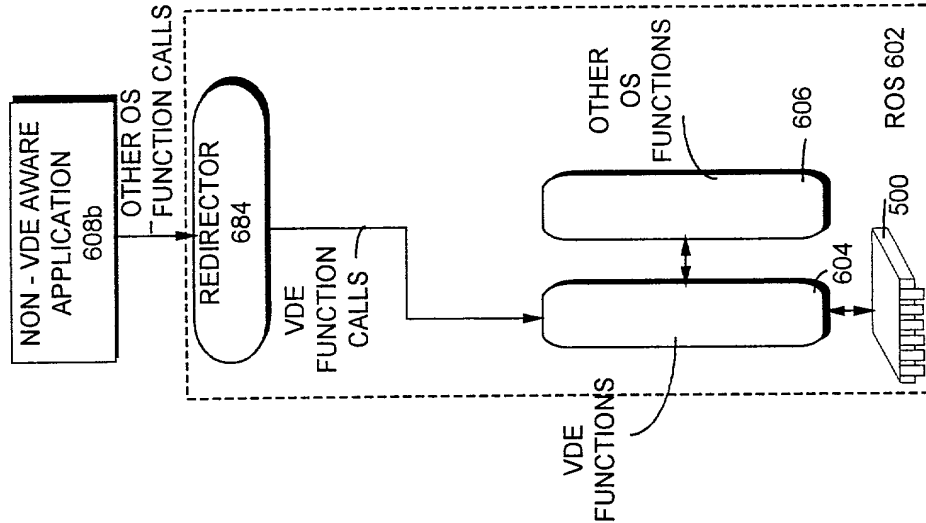
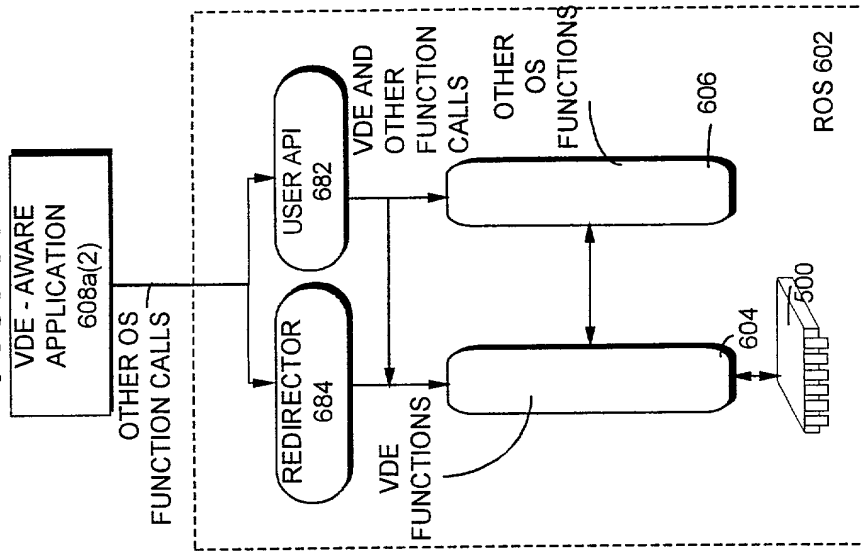


FIG. 11C



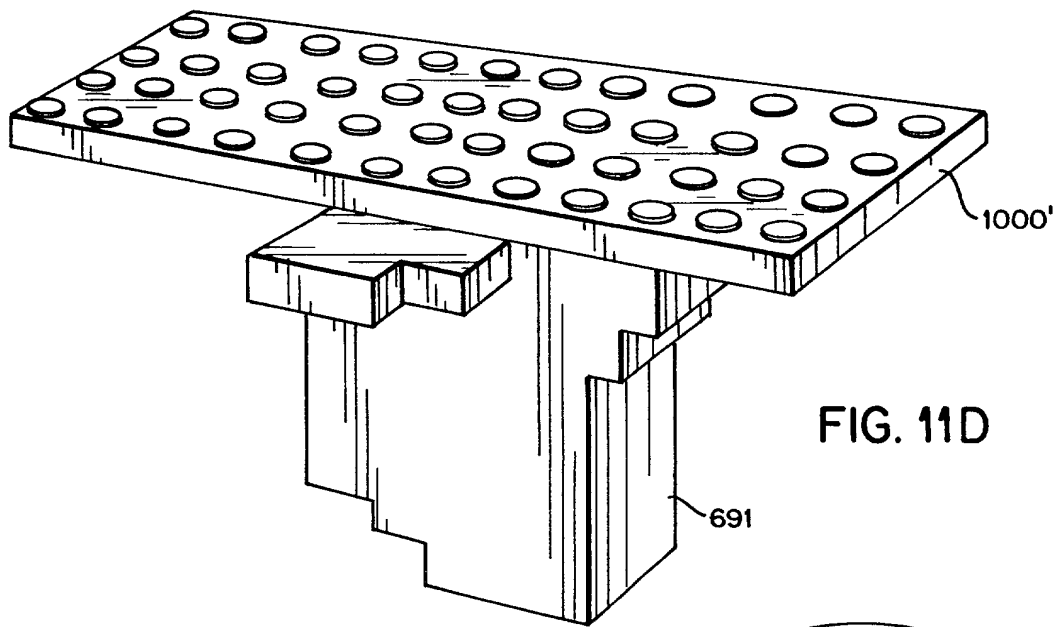


FIG. 11D

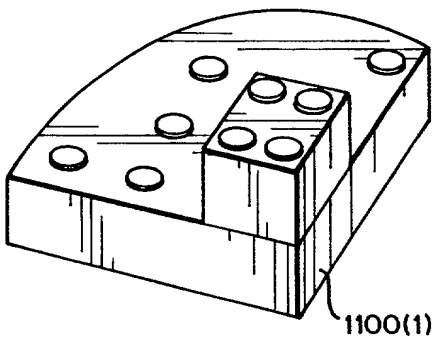


FIG. 11E

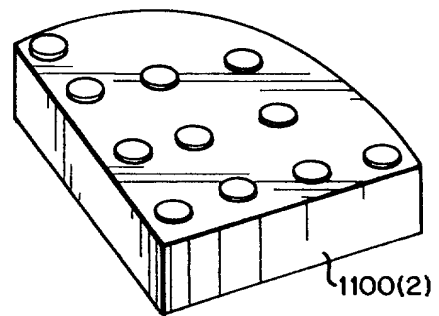


FIG. 11F

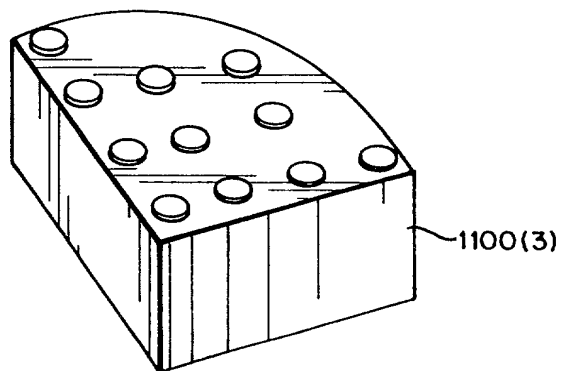


FIG. 11G

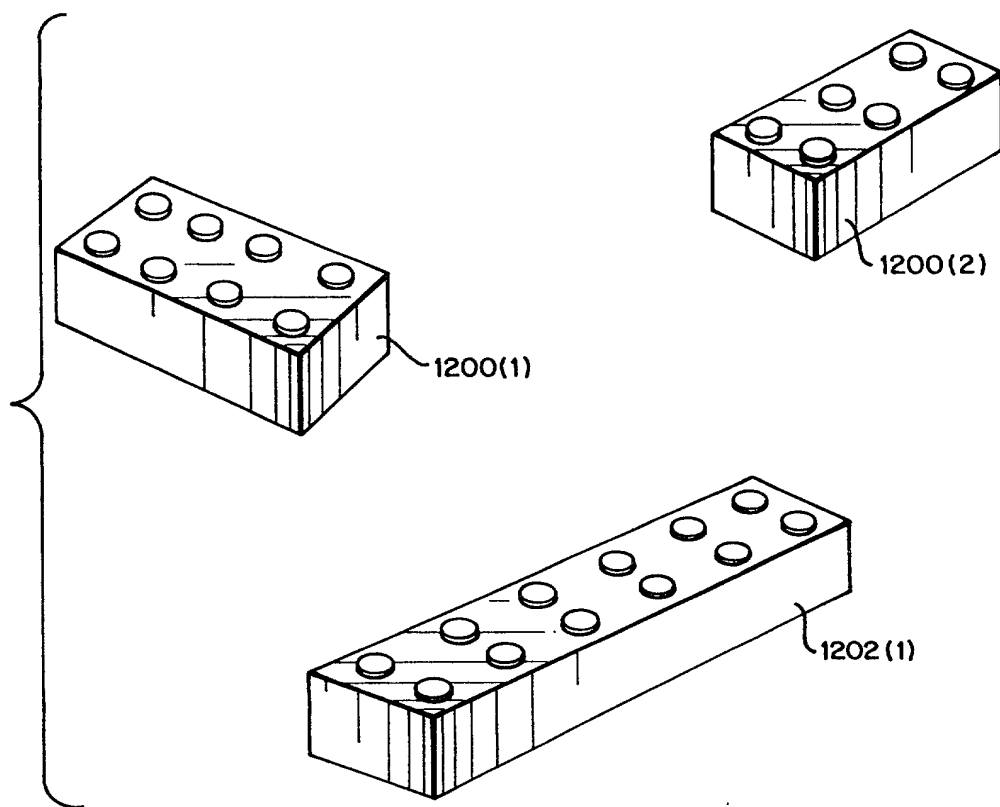
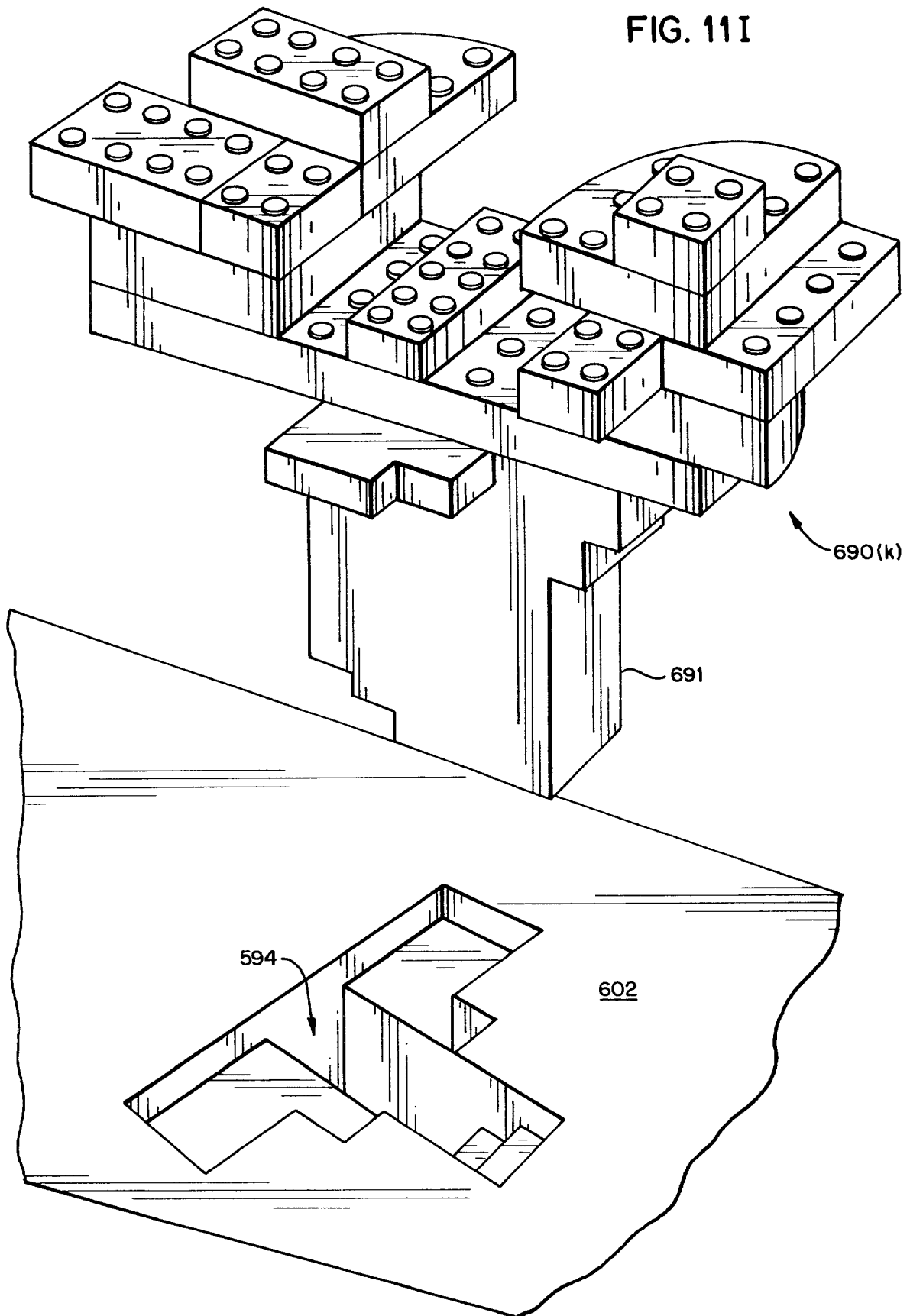


FIG. 11H

FIG. 11I



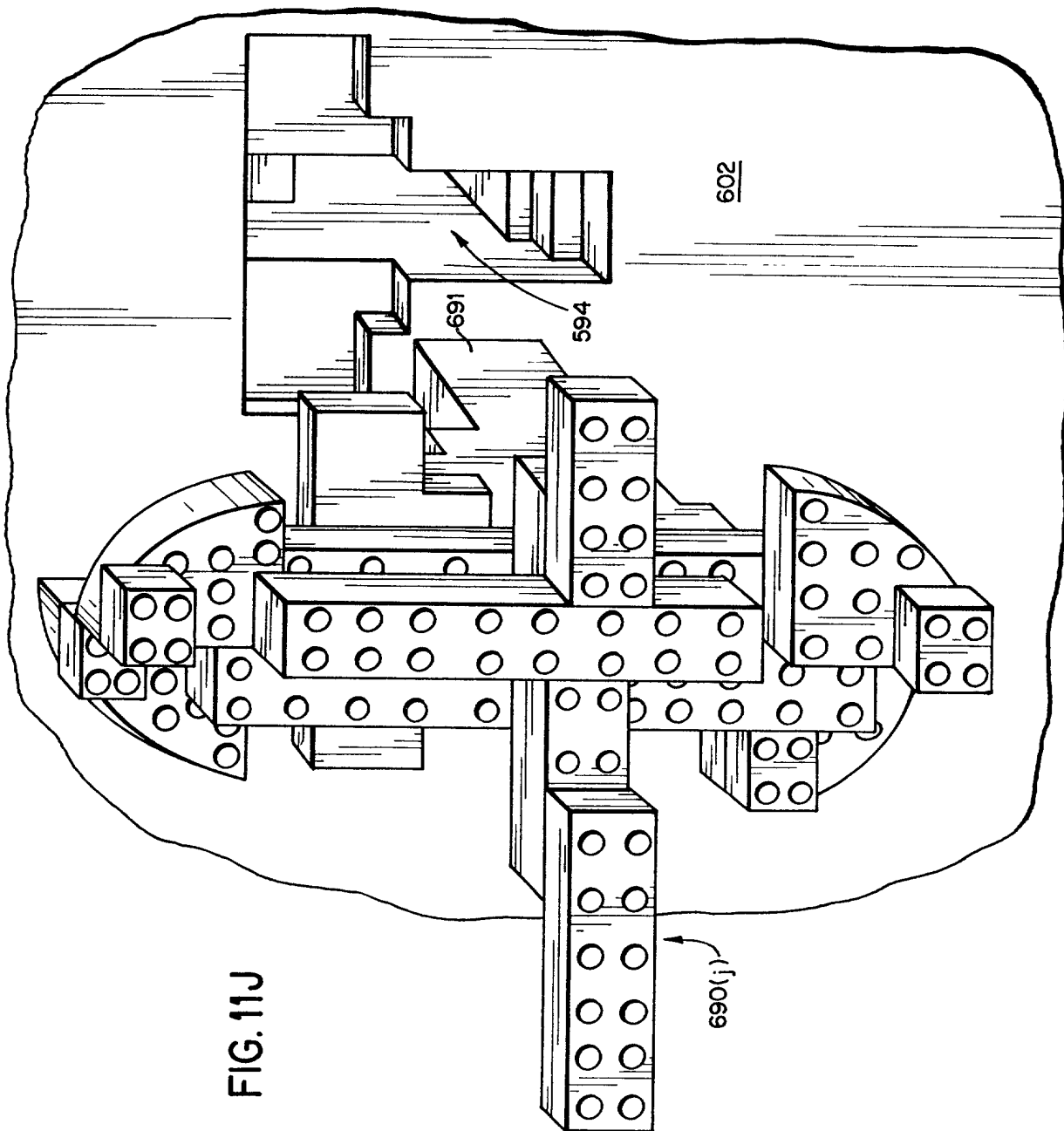


FIG. 12

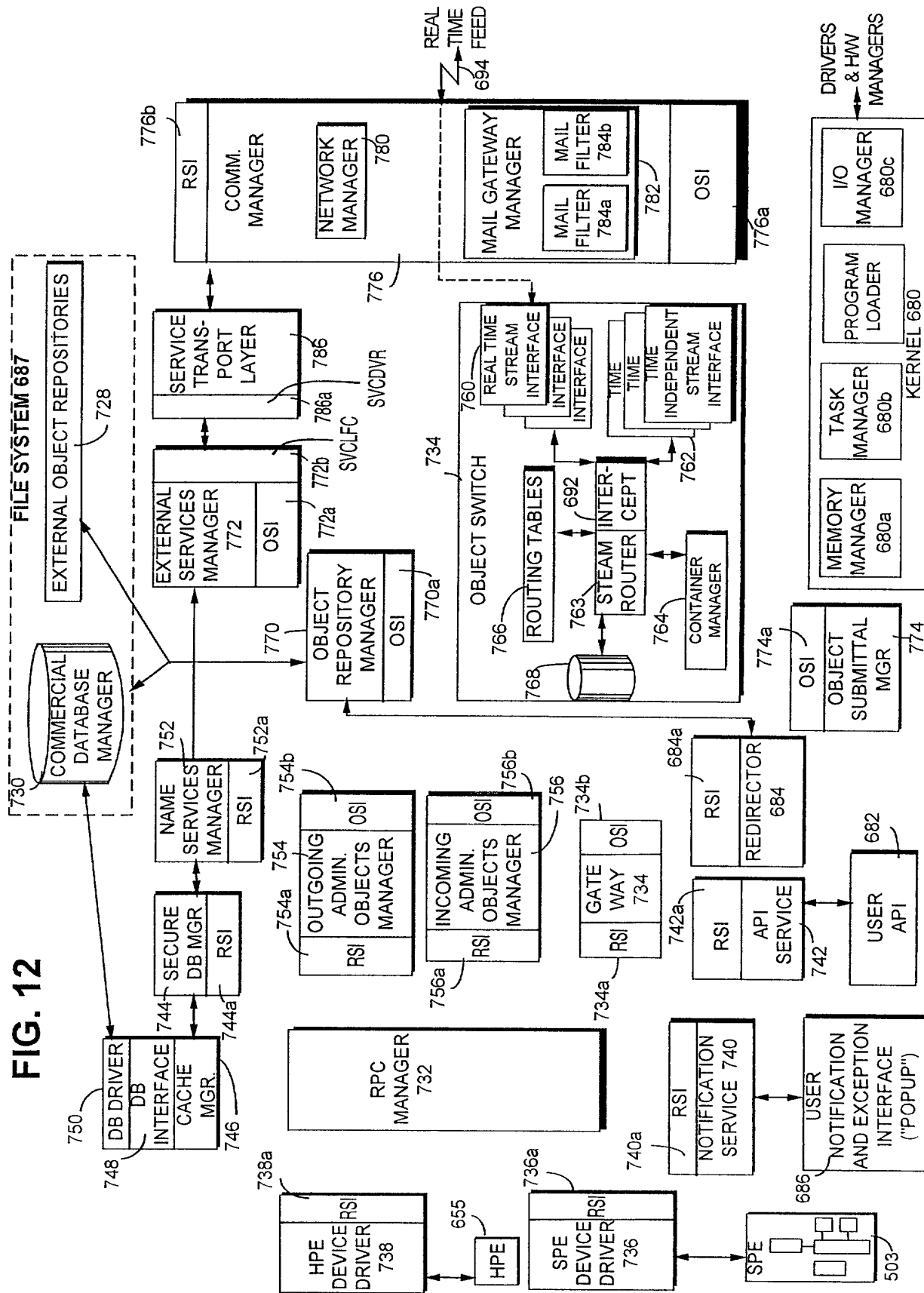


FIG. 12A

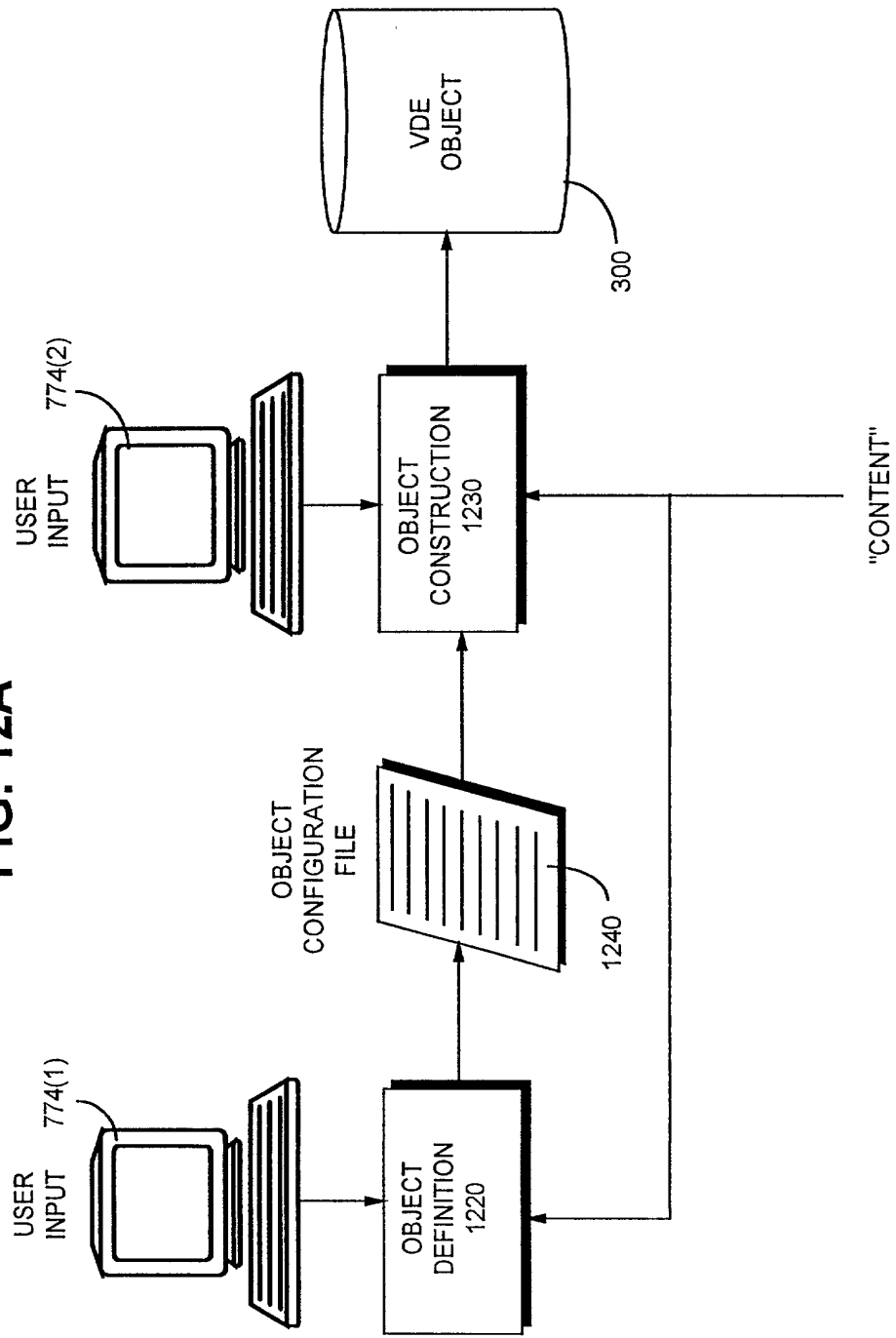


FIG. 13

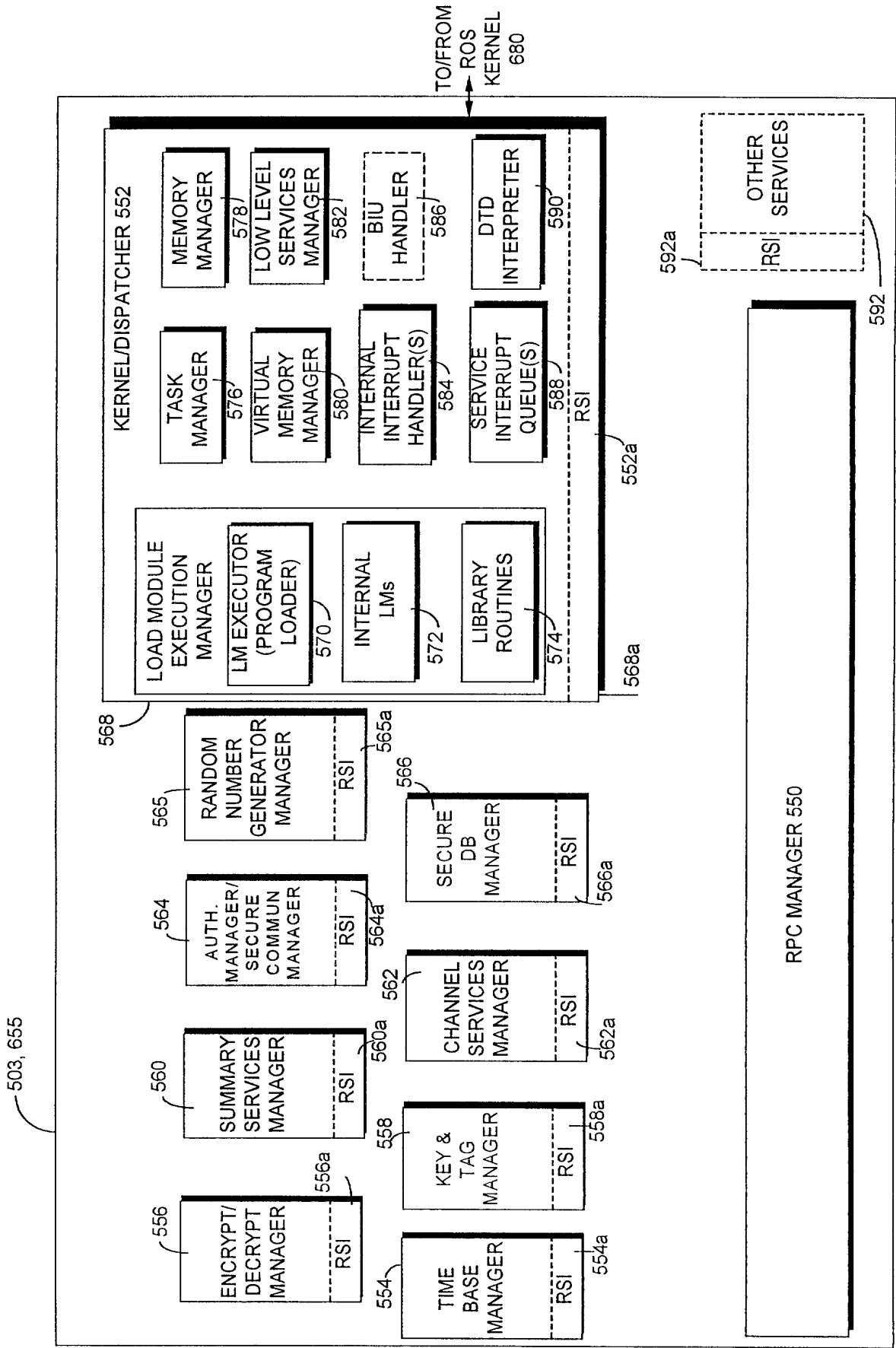


FIG. 14A

| | |
|--|--|
| DEVICE FIRM WIRE LOW LEVEL SERVICES 582 | TIME BASE MANAGER 554 |
| INITIALIZATION | ENCRYPTION/DECRYPTION MANAGER 556 |
| POST | PK |
| DOWNLOAD CHALLENGE/RESPONSE AND AUTHENTICATION | BULK |
| RECOVERY | KEY AND TAG MANAGER 558 |
| EEPROM/FLASH MEMORY MANAGER | KEY STORAGE IN EEPROM |
| KERNEL/DISPATCHER 552 | KEY LOCATOR |
| INITIALIZATION | KEY GENERATOR |
| TASK MANAGER 576 (SLEEP/AWAKE/CONTEXT SWAP) | CONVOLUTION ALGORITHM |
| INTERRUPT HANDLER 584 (TIMER/BIU/POWER FAIL/WATCHDOG TIMER/ENCRYPTION COMPLETED) | SUMMARY SERVICES MANAGER 560 |
| BIU HANDLER 586 | EVENT SUMMARIES |
| MEMORY MANAGER 578 | BUDGET SUMMARIES |
| INITIALIZATION (SETTING MMU TABLES) | DISTRIBUTER SUMMARY SERVICES |
| ALLOCATE | CHANNEL SERVICES MANAGER 562 |
| DEALLOCATE | CHANNEL HEADERS |
| VIRTUAL MEMORY MANAGER 580 | CHANNEL DETAILS |
| SWAP BLOCK PAGING | LOAD MODULE EXECUTION SERVICES 568 |
| EXTERNAL MODULE PAGING | AUTHENTICATION MANAGER/SECURE COMMUNICATION MANAGER 564 |
| MEMORY COMPRESS | DATABASE MANAGER 566 |
| RPC AND TABLES 550 | MANAGEMENT FILE SUPPORT |
| INITIALIZATION | TRANSACTION AND SEQUENCE NUMBER SUPPORT |
| MESSAGING CODE /SERVICES MANAGER | SRN/ HASH |
| SEND/RECEIVE | DTD INTERPRETER 590 |
| STATUS | LIBRARY ROUTINES 574 |
| RPC DISPATCH TABLE | I/O CALLS(STRING SEARCH ETC.) |
| RPC SERVICE TABLE | MISC. ITEMS THAT ARE PROBABLY LIBRARY ROUTINES |
| | TAG CHECKING,MD5,CRC'S |
| | INTERNAL LM'S 572 FOR BASIC METHODS |
| | METER LOAD MODULE(S) |
| | BILLING LOAD MODULE(S) |
| | BUDGET LOAD MODULE(S) |
| | AUDIT LOAD MODULE(S) |
| | READ OBJECT LOAD MODULE(S) |
| | WRITE OBJECT LOAD MODULE(S) |
| | OPEN OBJECT LOAD MODULE(S) |
| | CLOSE OBJECT LOAD MODULE(S) |

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09764370 072304
T0E270 0249760

09764370 072304

FIG. 14B

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|--|
| PUBLIC KEY AND PRIVATE KEY, SYSTEM ID, AUTHENTICATION CERTIFICATE, VDE SYSTEM PUBLIC KEY, PRIVATE DES KEY |
| TOP LEVEL KEYS FOR OBJECTS |
| TOP LEVEL BUDGET INFO |
| METER SUMMATION VALUES |
| KEY RECORDS FOR BUDGET RECORDS, AUDIT RECORDS, STATIC MANAGEMENT RECORDS, UPDATED MANAGEMENT RECORDS, ETC. |
| • • • |
| DEVICE DATA TABLE |
| SITE ID |
| TIME |
| ALARMS |
| TRANSACTION/SEQUENCE #'S |
| MISCELLANEOUS |
| MEMORY MAP |
| MAP METERS |
| LM/UDT TABLE |
| TASK MANAGER 576 |
| CHANNEL(S) |
| SUMMARY SERVICES 560 |
| SECURE DATABASE TAGS |
| SRN ENTRIES |
| HASH ENTRIES |

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•
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FIG. 14C

| | |
|--------------------|------------------------------|
| STACK | |
| • | |
| CHANNEL SWAP BLOCK | CHANNEL LM |
| | CHANNEL HEADER & D1 |
| CONTROL SWAP BLOCK | CONTROL LM |
| | CONTROL D1 |
| | COMMIT LM |
| | COMMIT D1, D2, D3 |
| EVENT SWAP BLOCK | EVENT LM |
| | MAP TABLE (SINGLE) D1 |
| METER SWAP BLOCK | METER LM |
| | METER UDE DELTA,DELTA' |
| | METER TRAIL LM |
| | METER TRAIL UDE DELTA,DELTA' |
| | |
| BUDGET SWAP BLOCK | METER LM |
| | METER UDE DELTA,DELTA' |
| | METER TRAIL LM |
| | METER TRAIL UDE DELTA,DELTA' |
| | |
| BILLING SWAP BLOCK | BILLING LM |
| | METER UDE |
| | BUDGET UDE |
| | BILLING TABLE UDE |
| | BILLING TRAIL LM |
| | BILLING TRAIL UDE DELTA' |

•

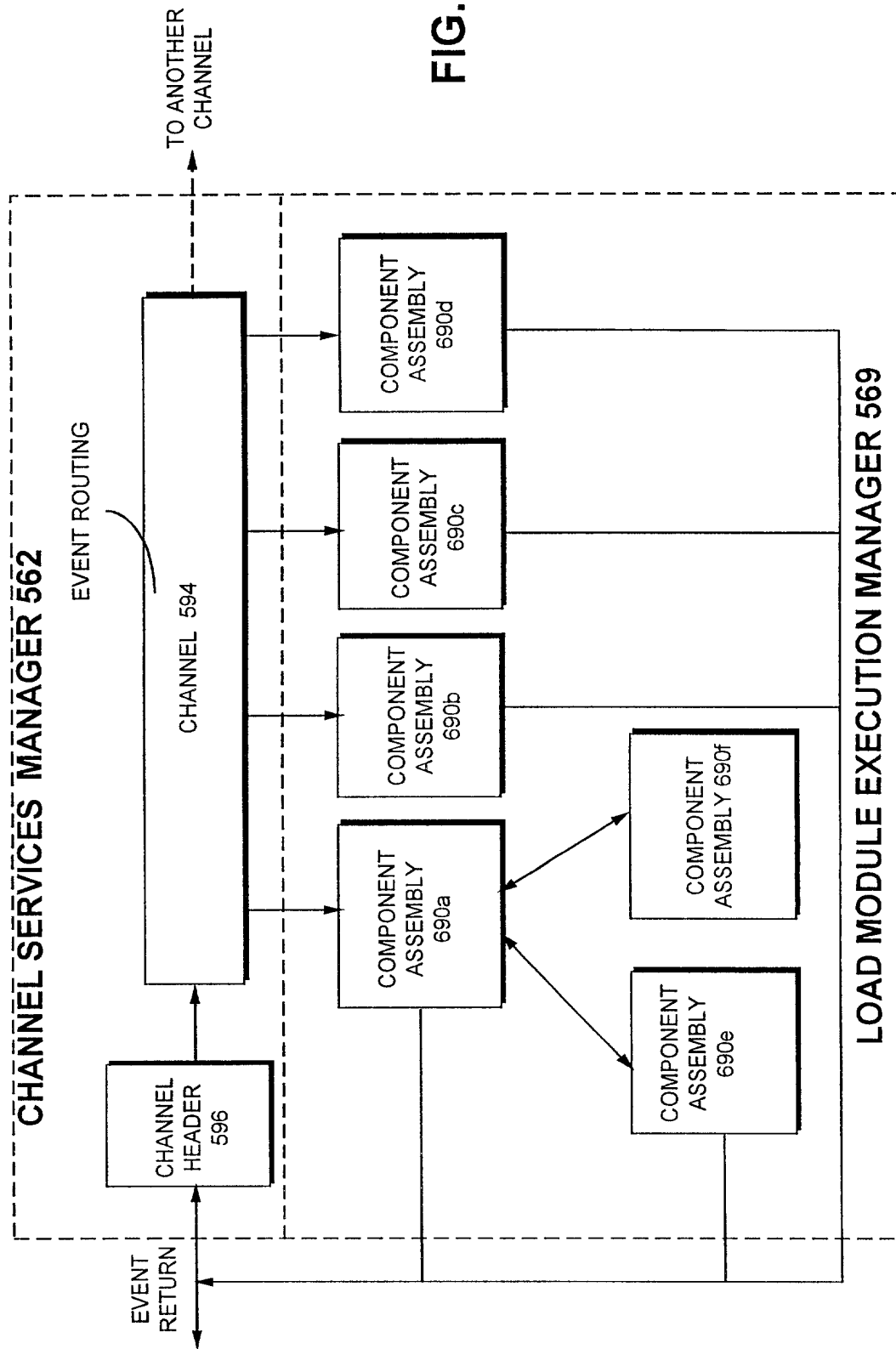
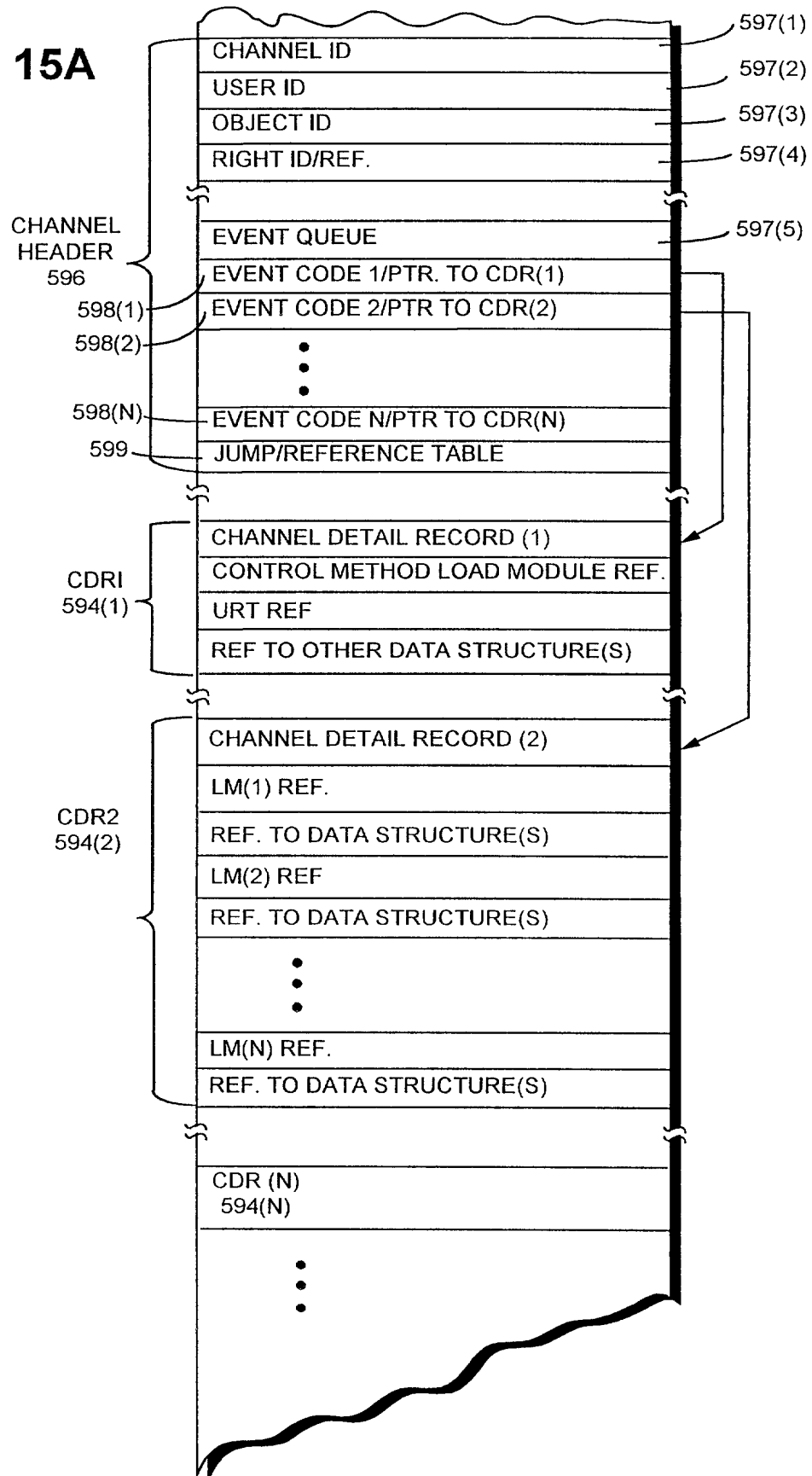


FIG. 15

FIG. 15A



09764370.072301

FIG. 15B

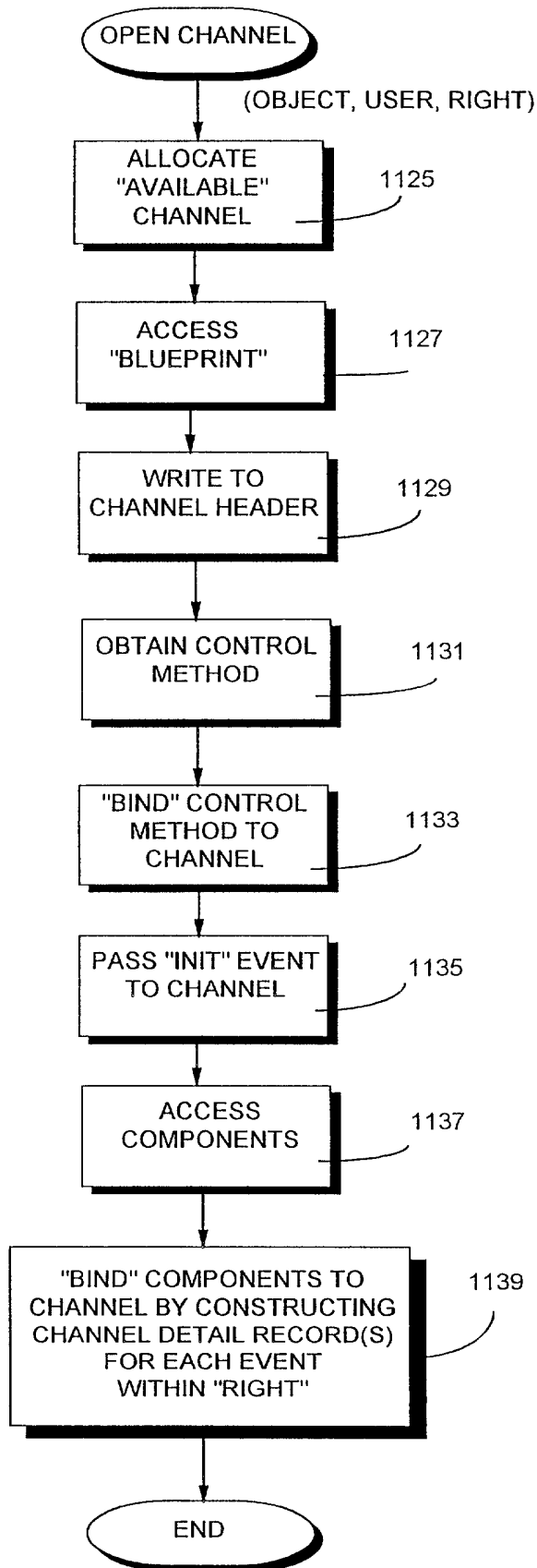
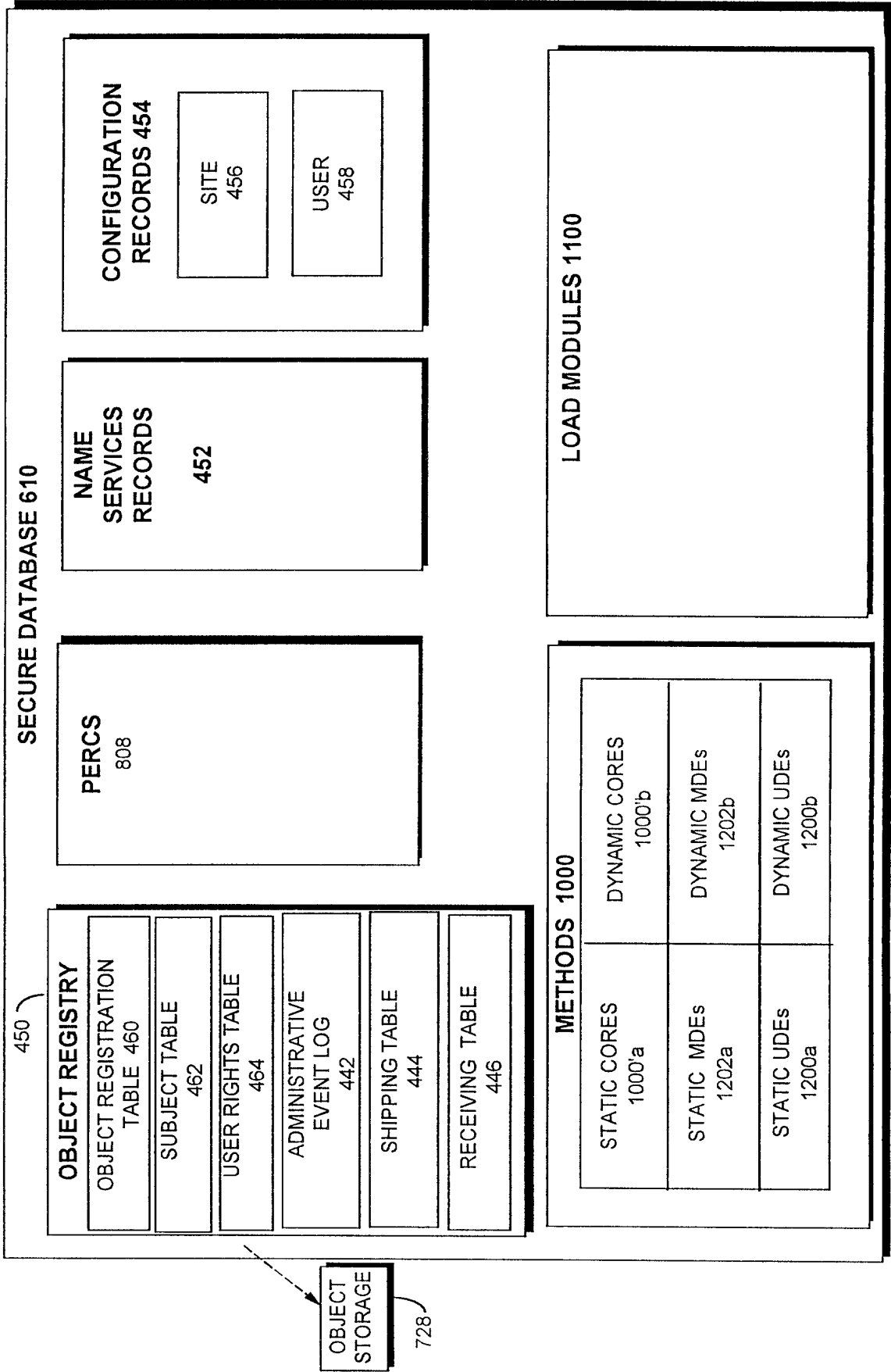


FIG. 16



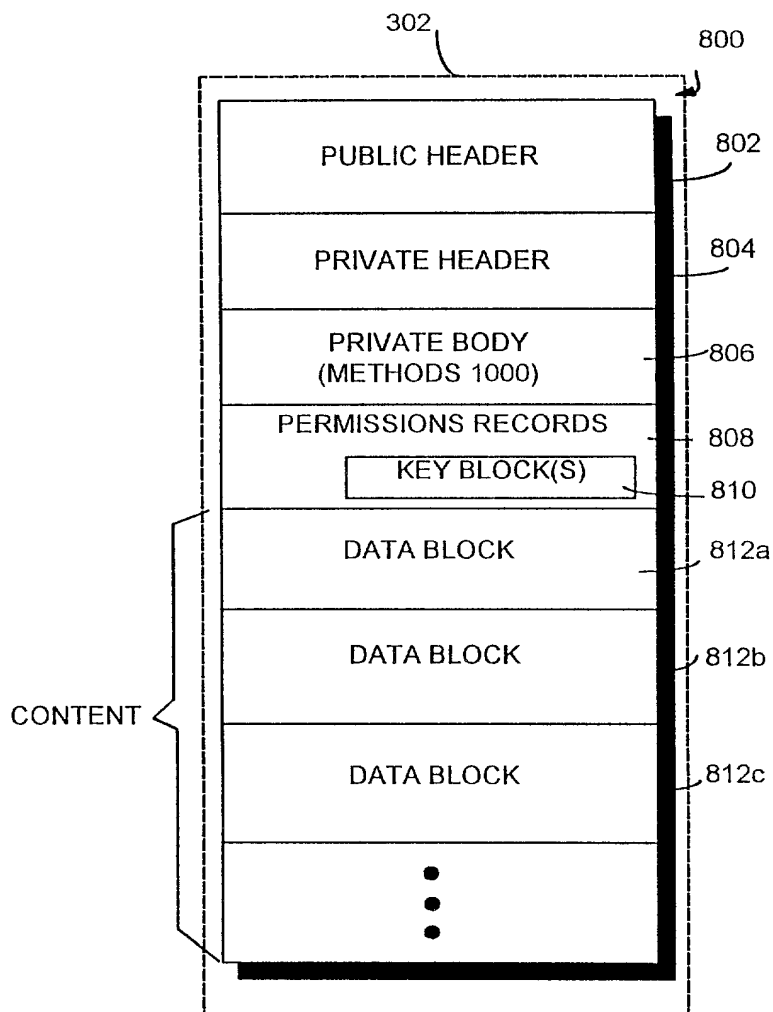


FIG. 17

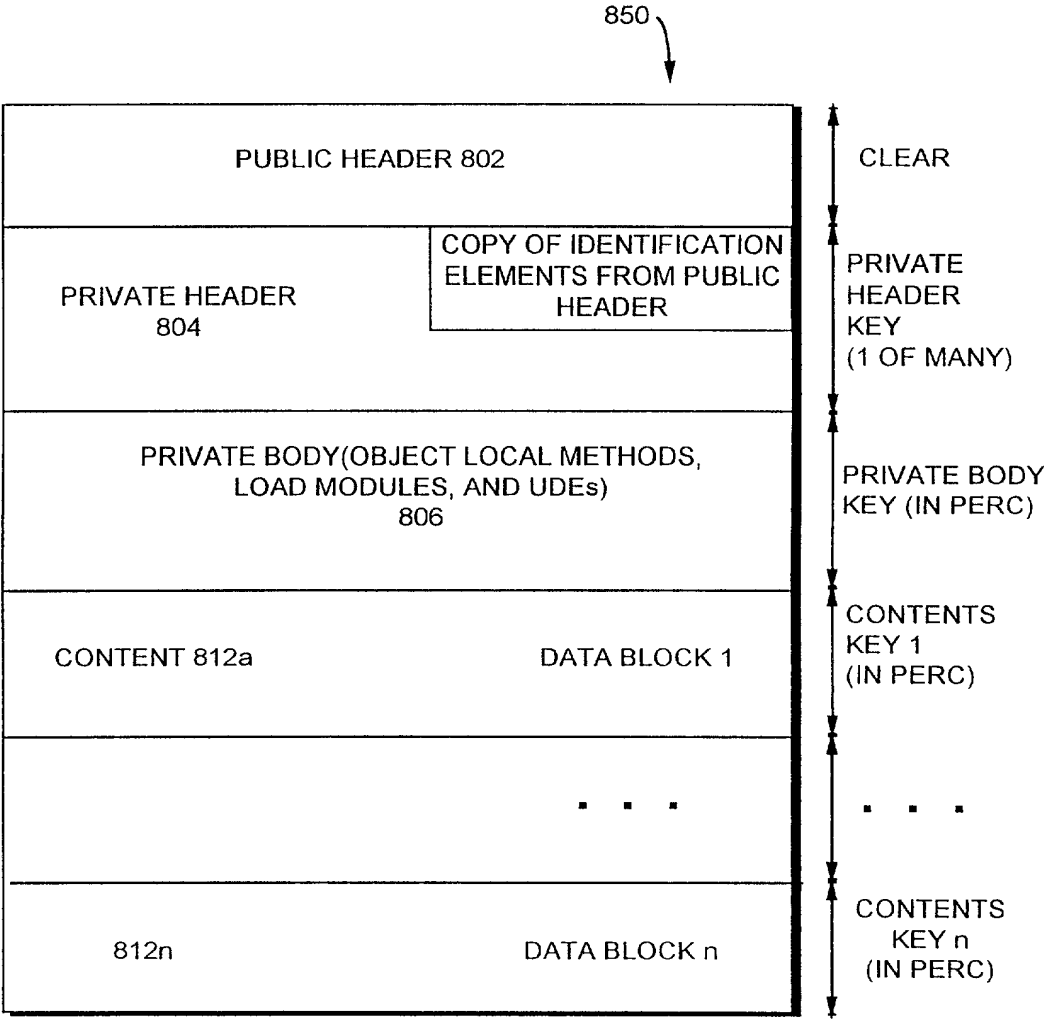


FIG. 18

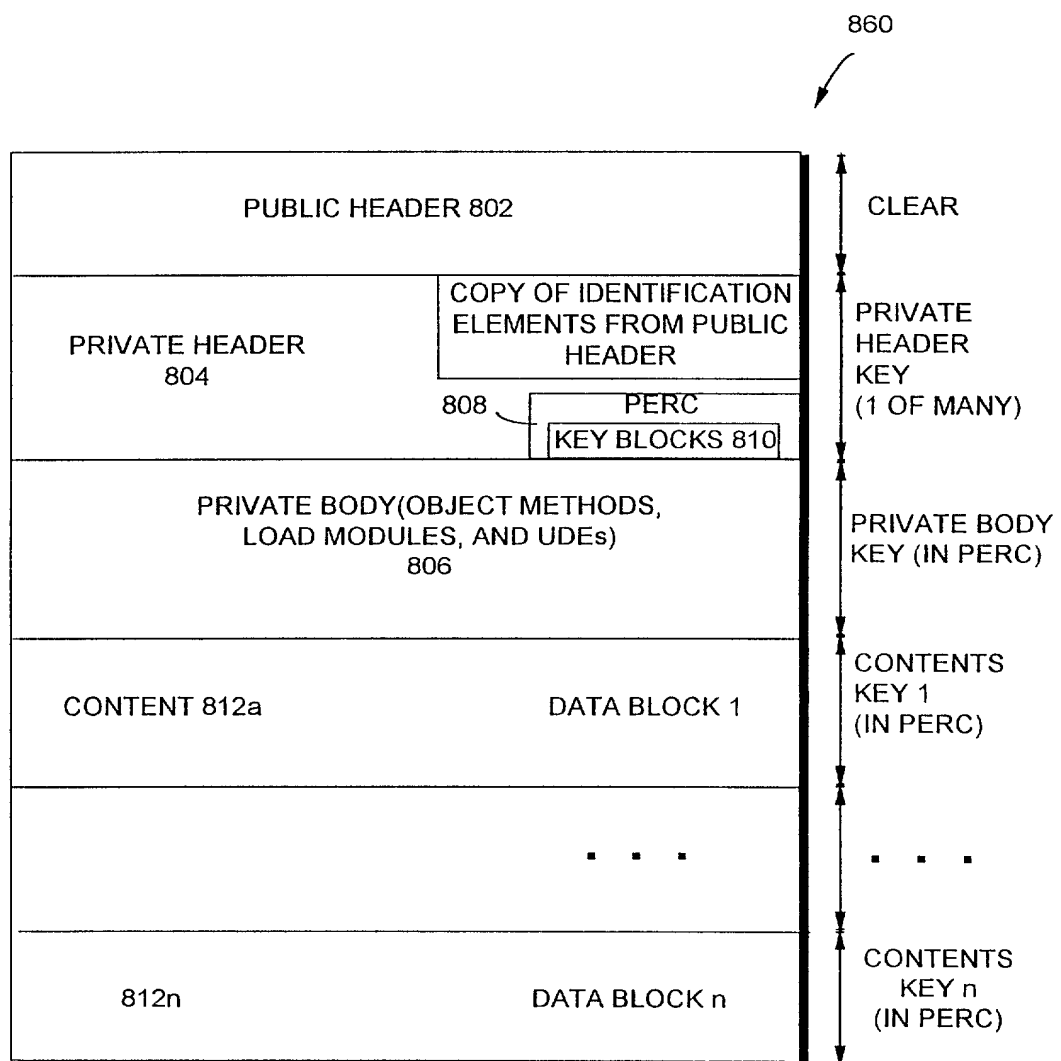


FIG. 19

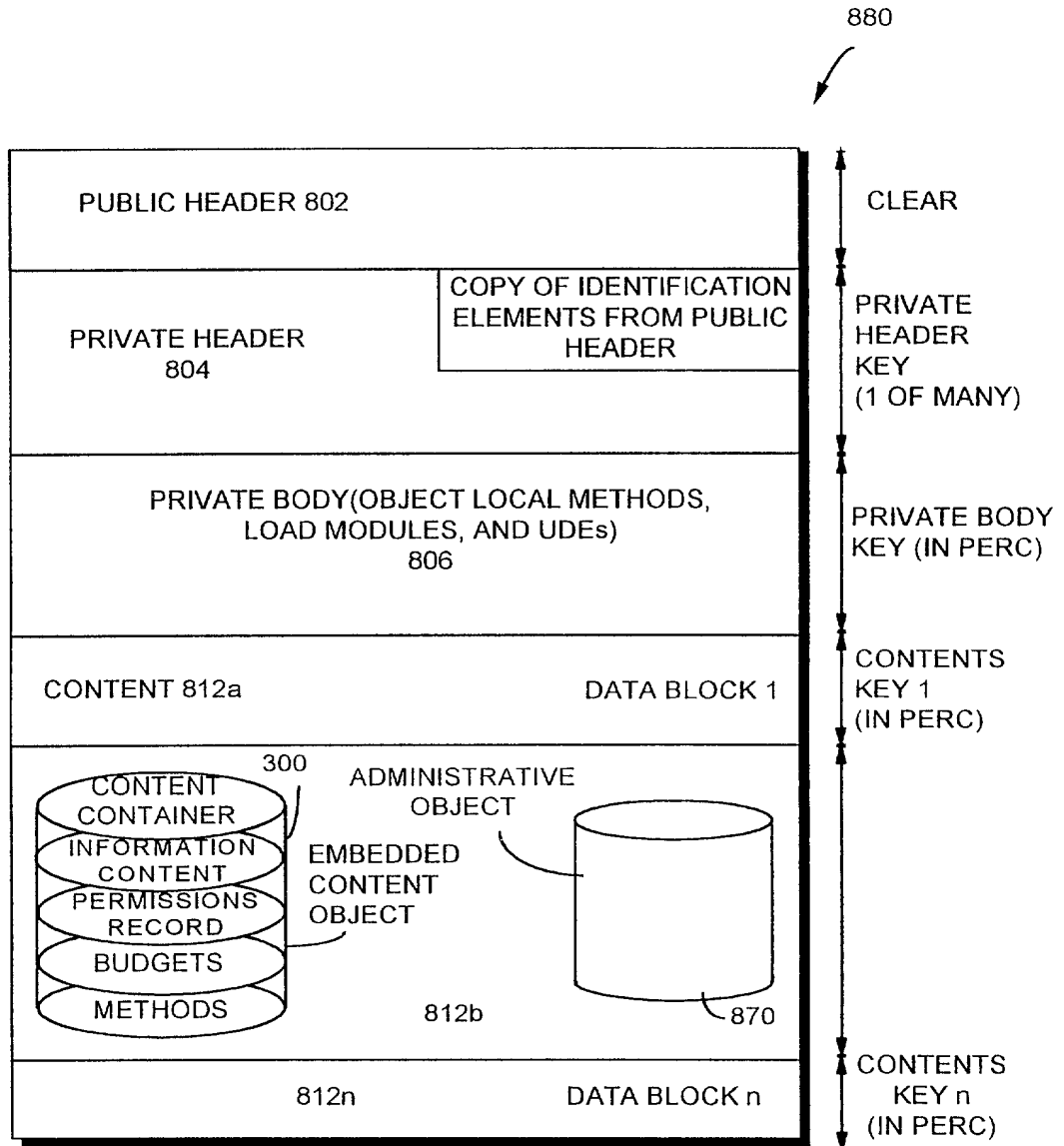


FIG. 20

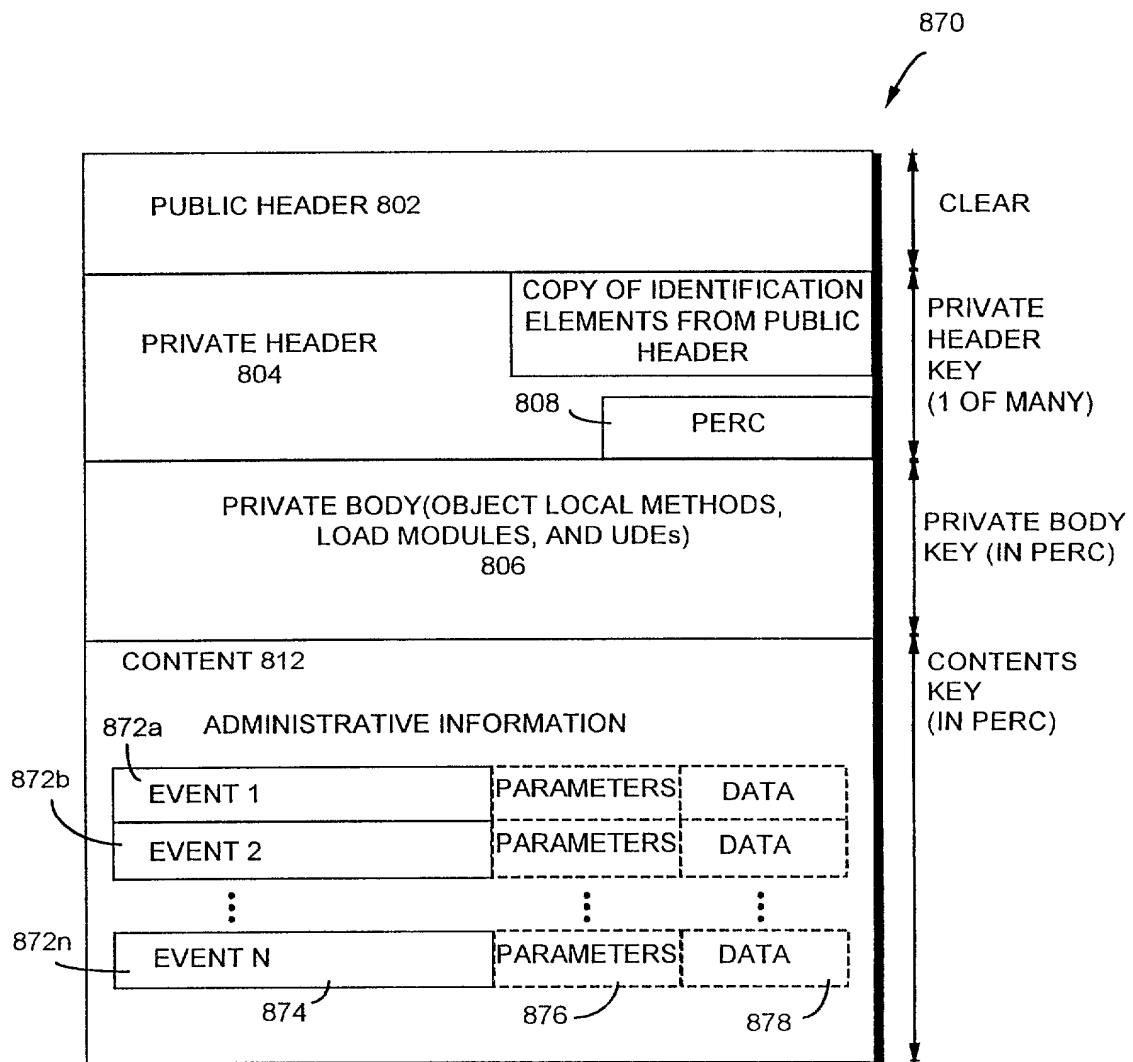


FIG. 21

FIG. 22

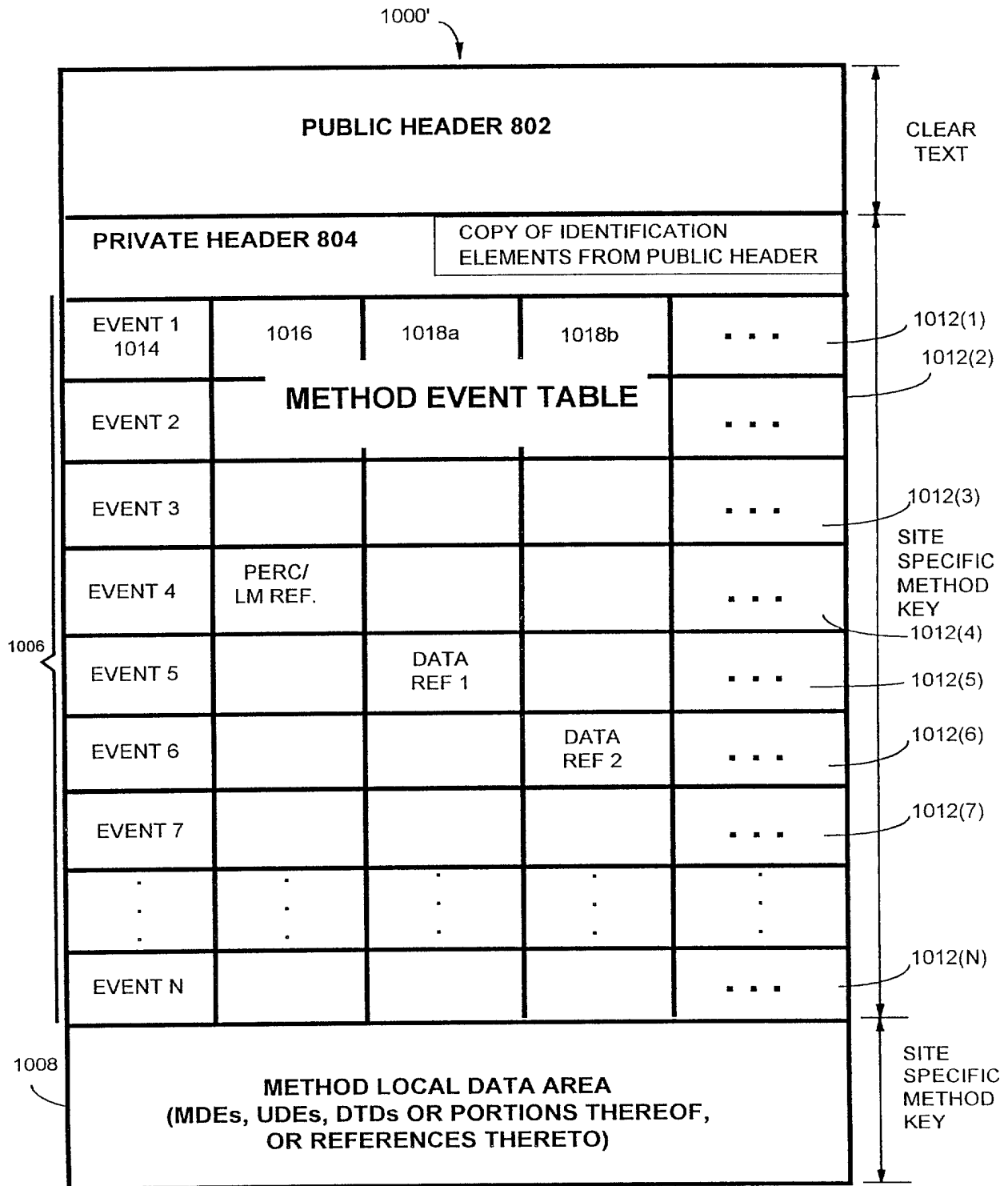


FIG. 23

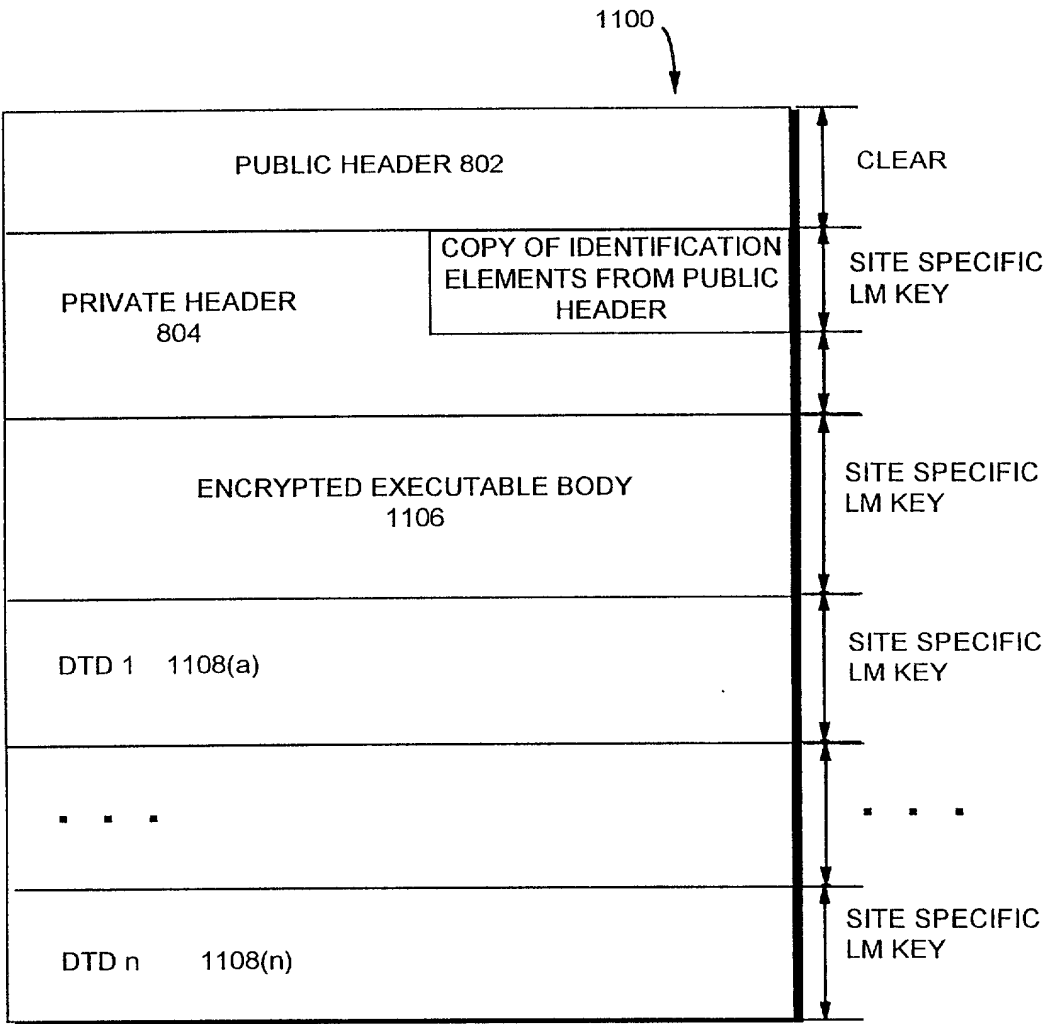
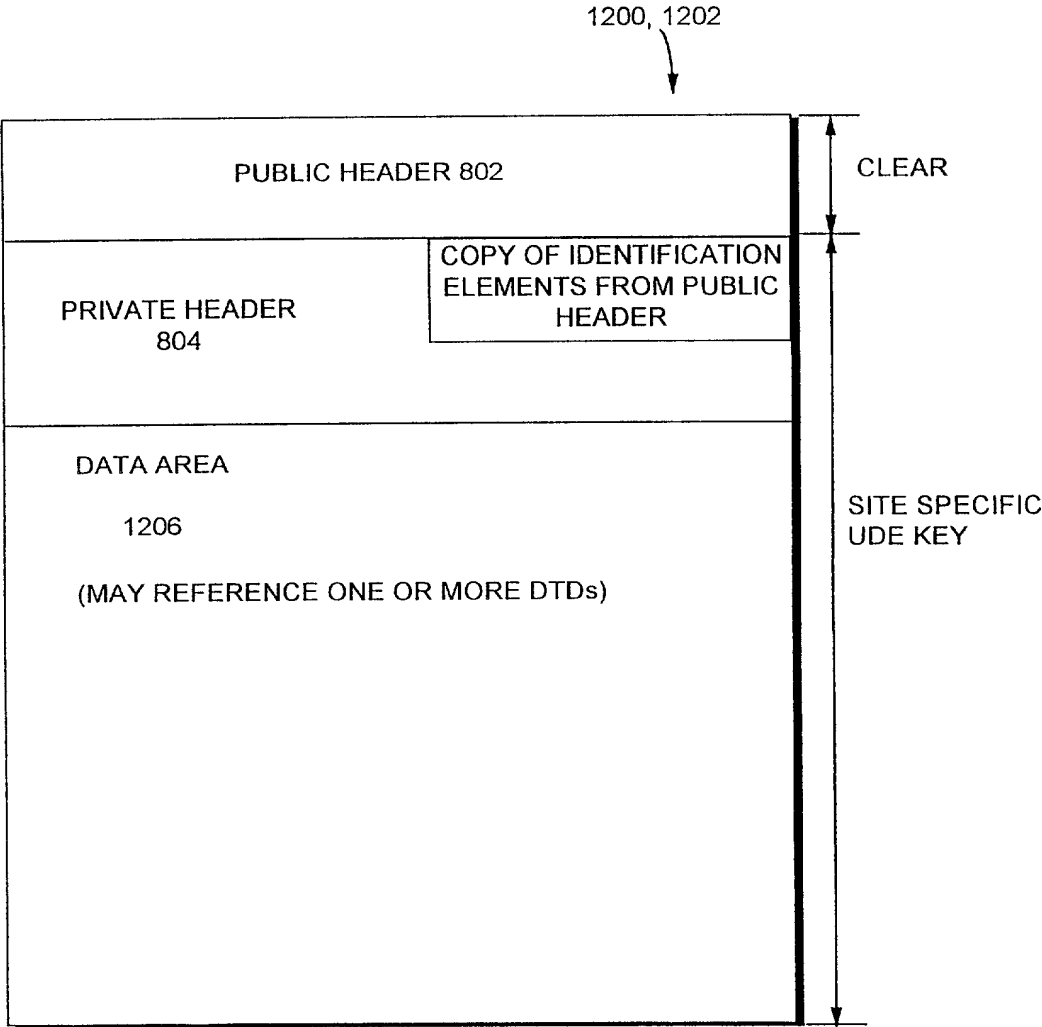


FIG. 24



03764370.072304
T0E270"07E49760

FIG. 25A

FIG. 25A

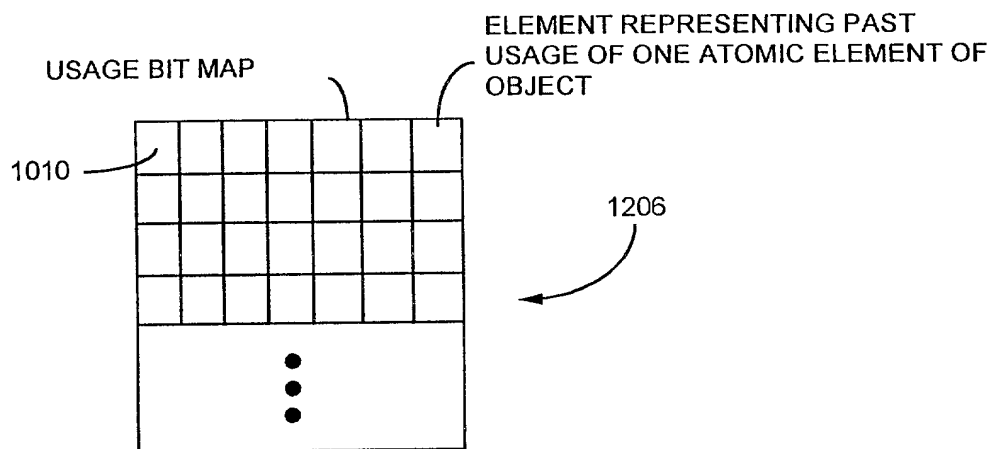


FIG. 25B

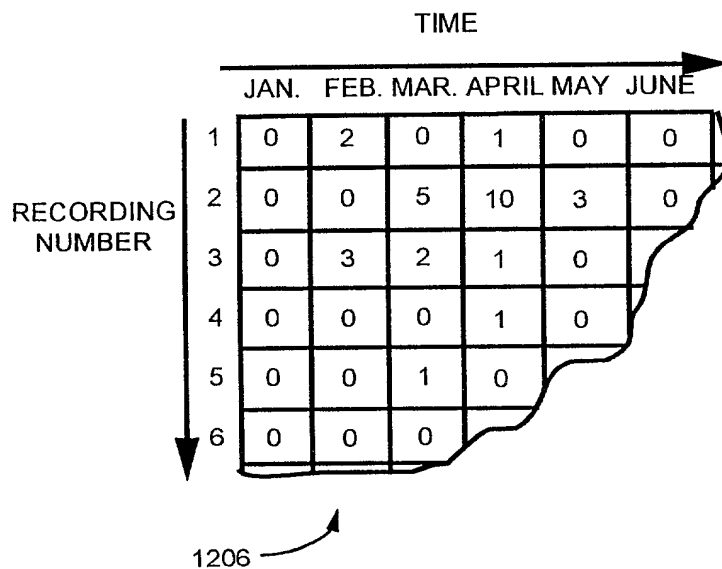


FIG. 25C

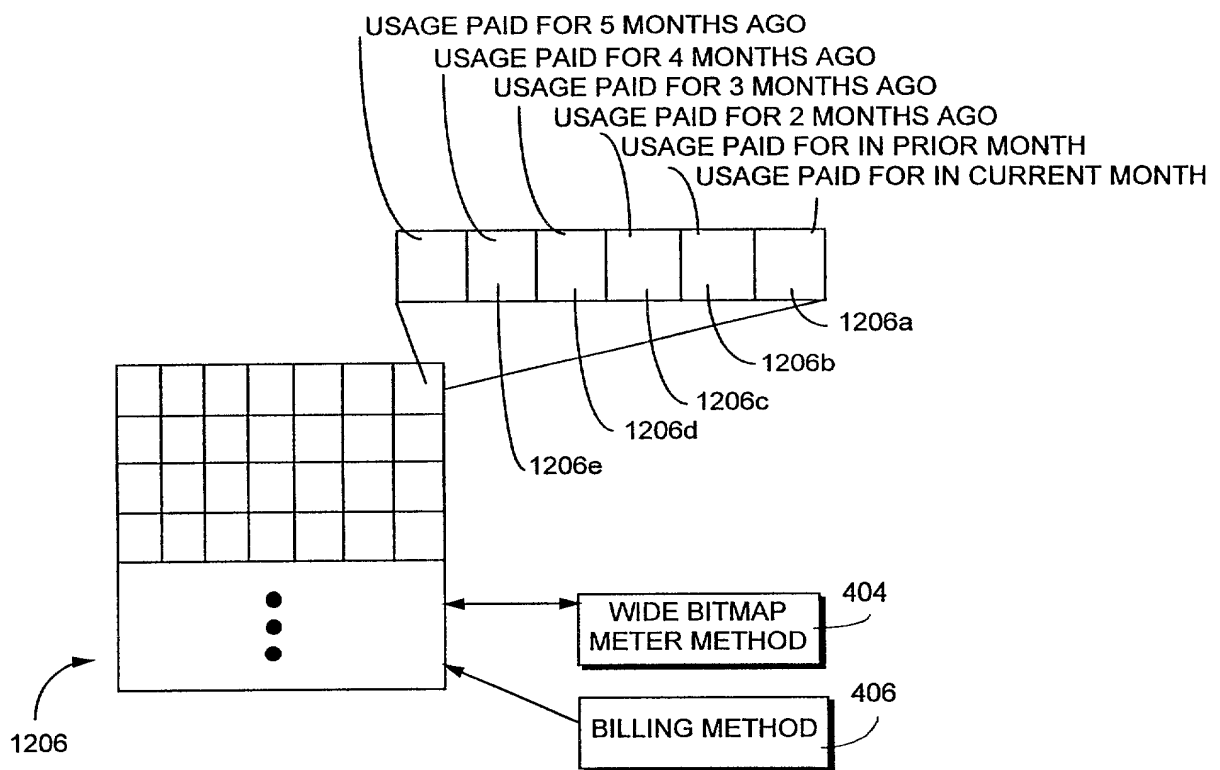


FIG. 26

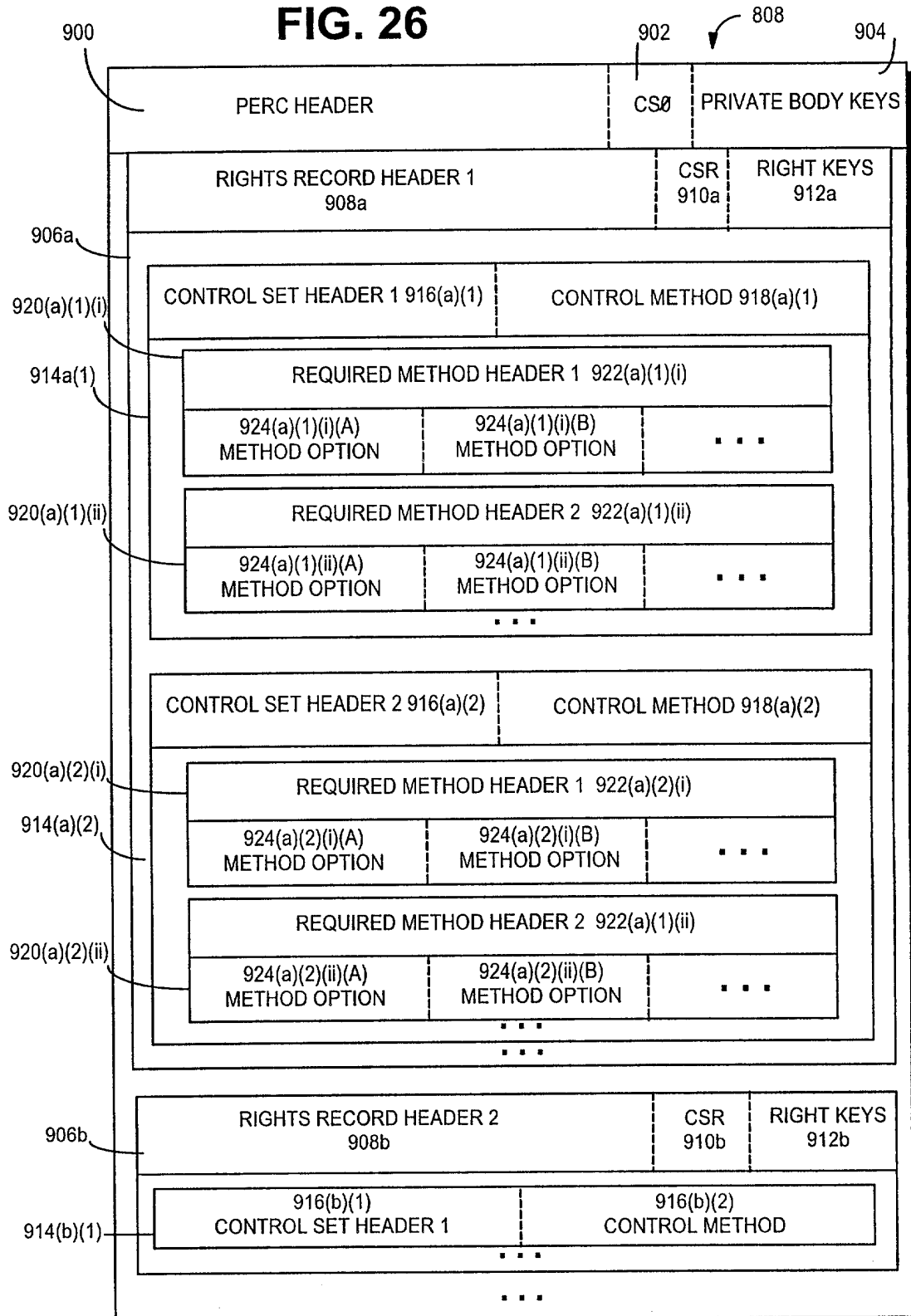


FIG. 26A

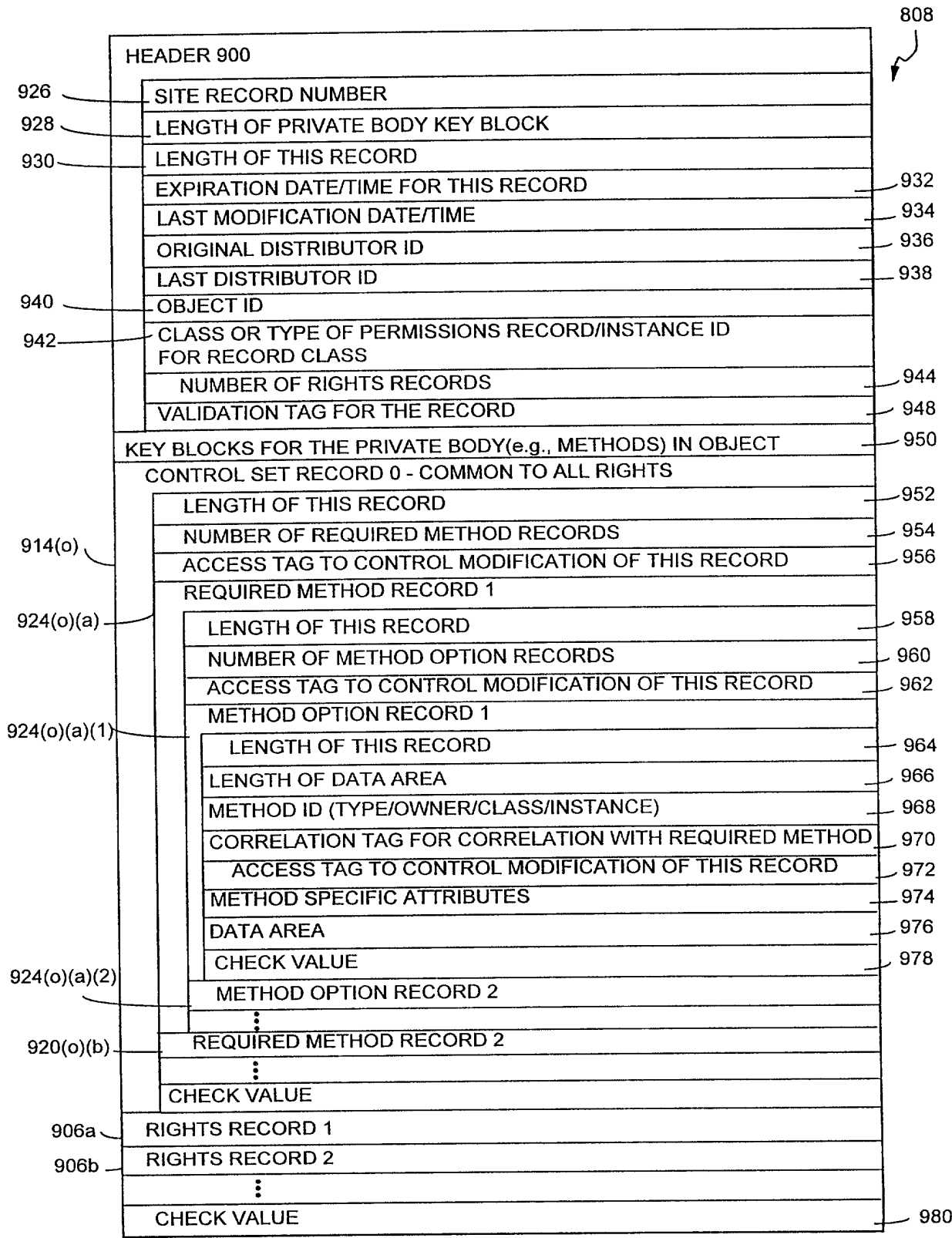


FIG. 26B

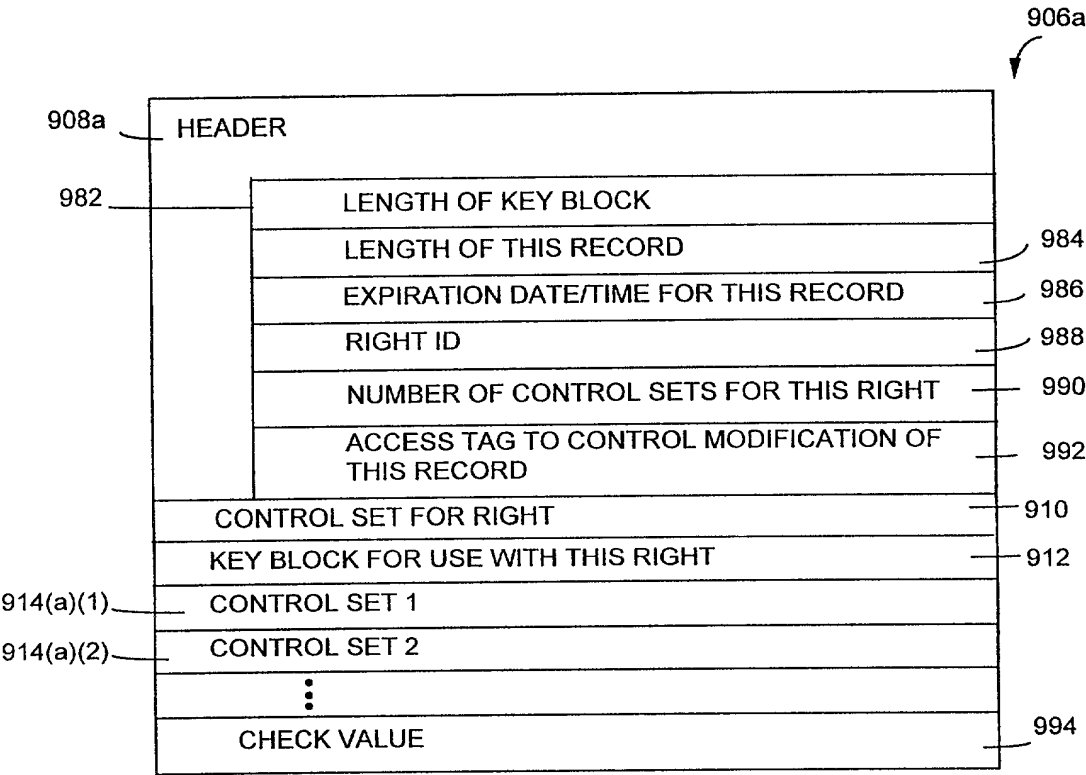


FIG. 27

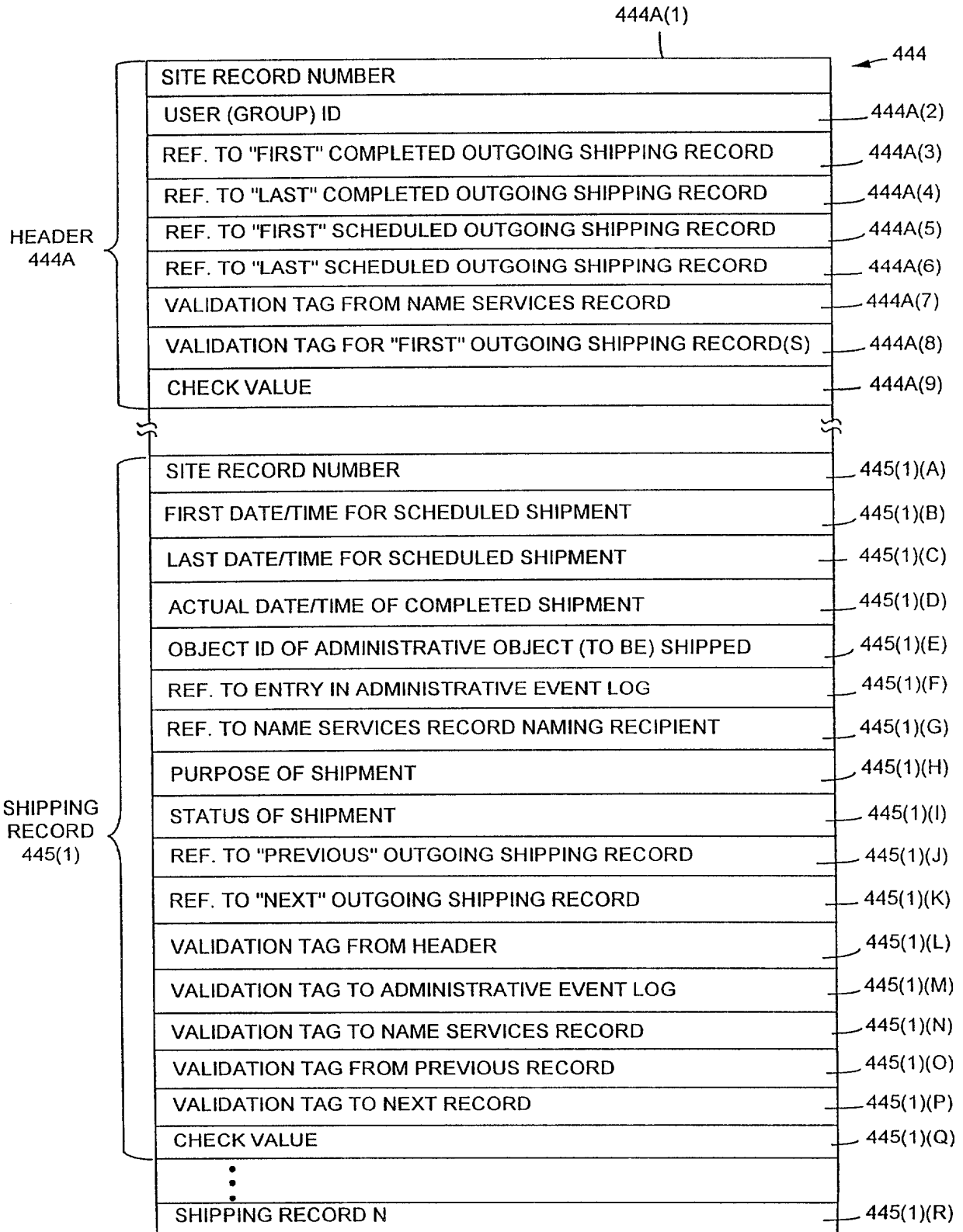


FIG. 28

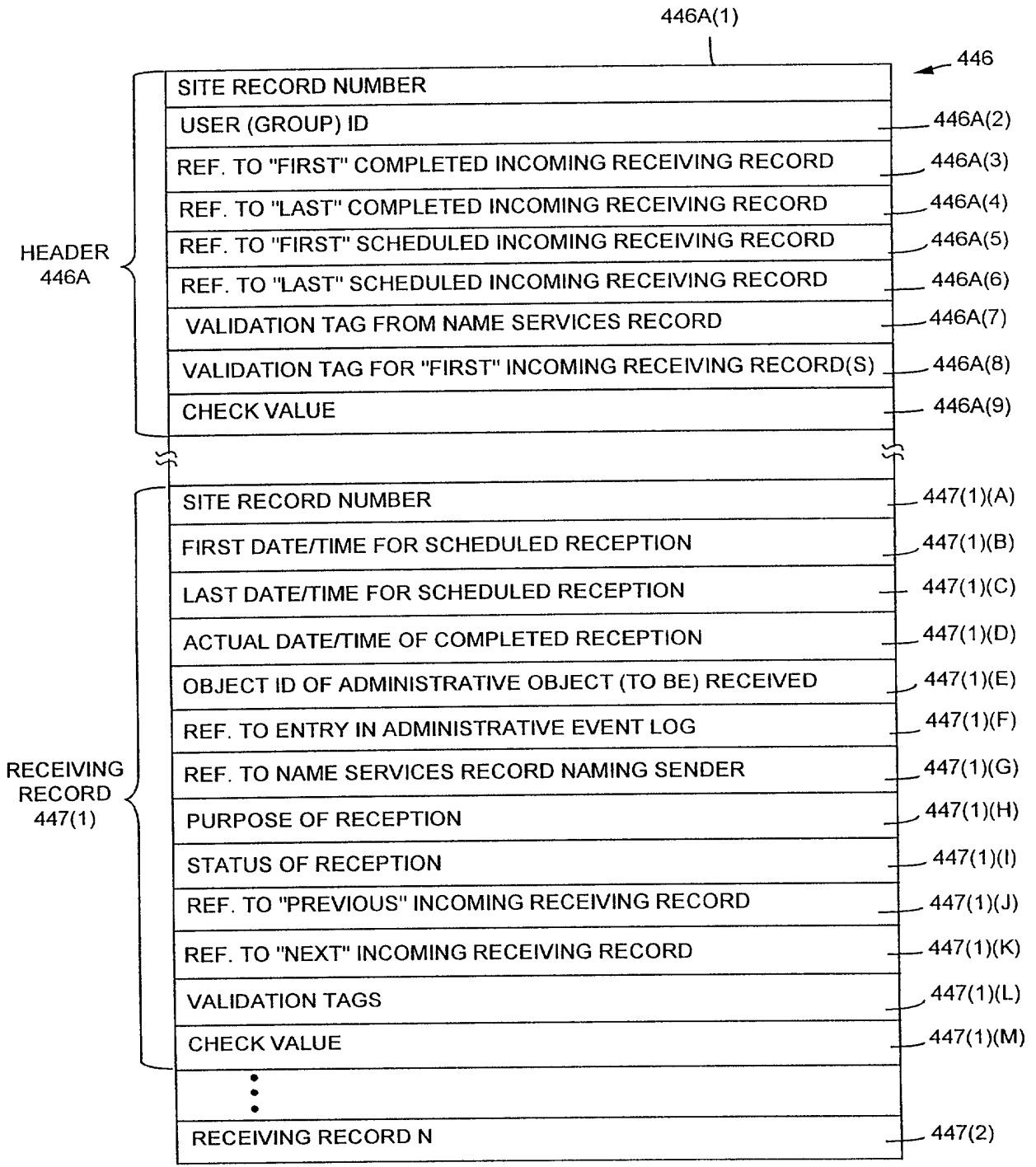


FIG. 29

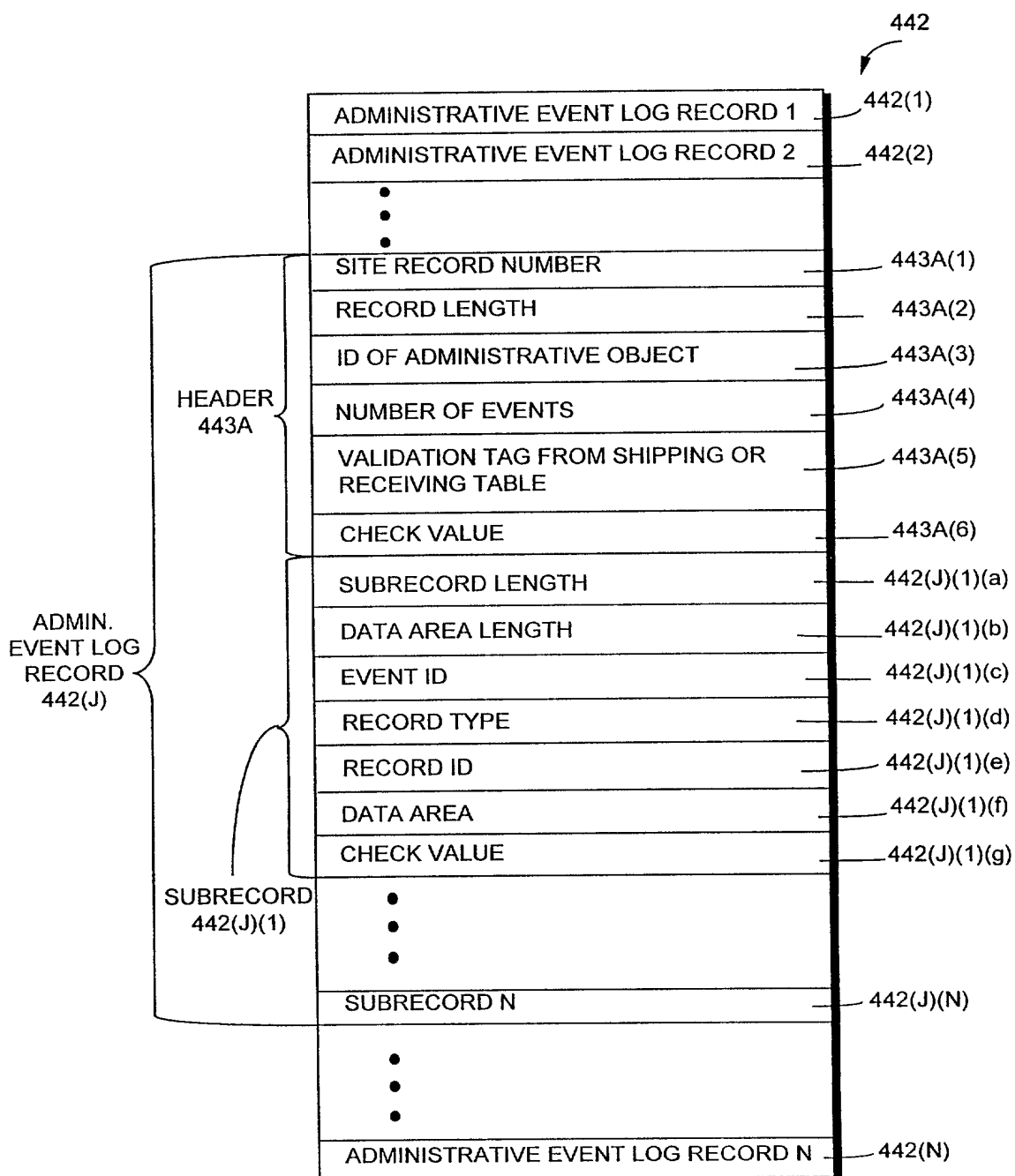
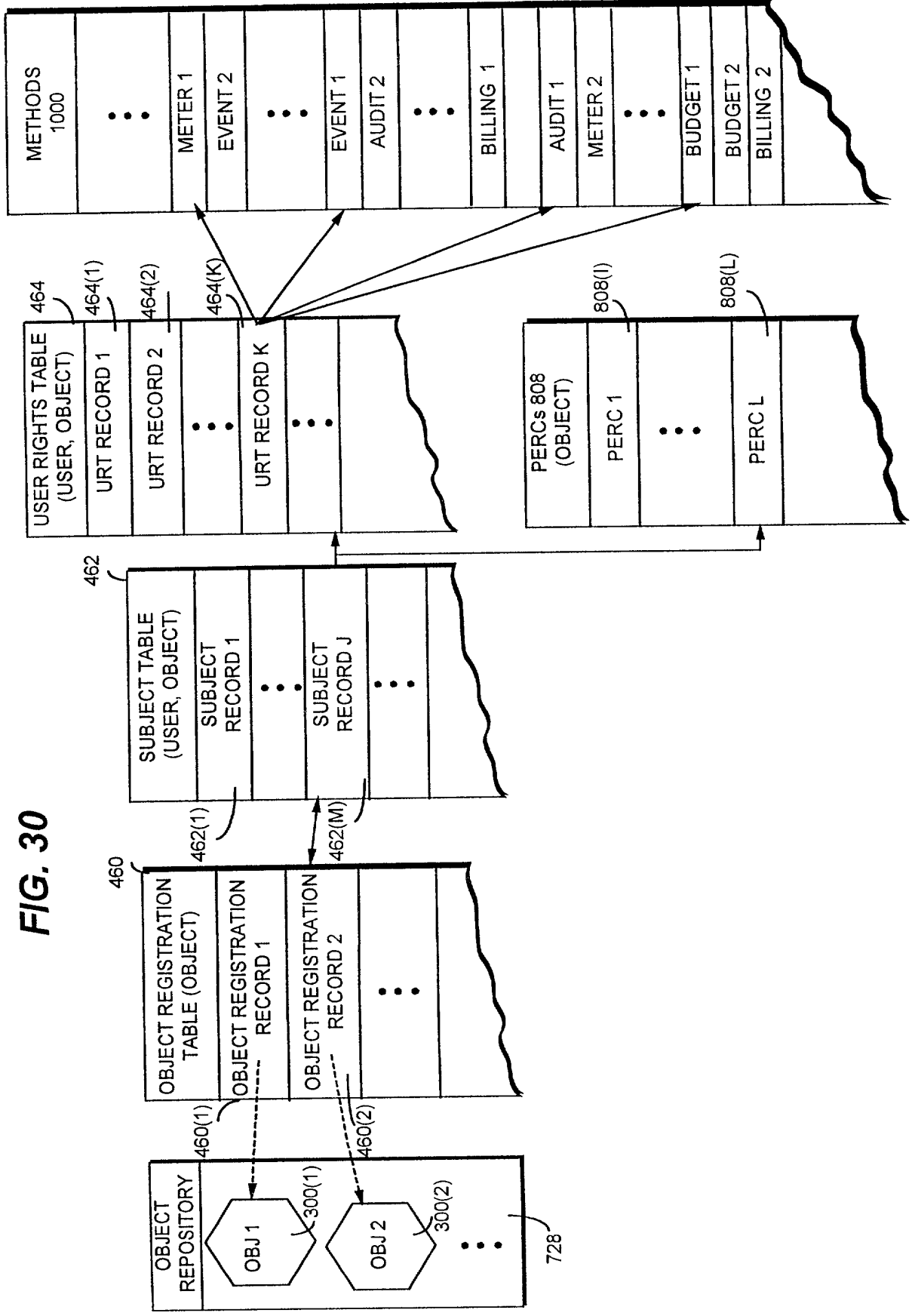


FIG. 30



The diagram illustrates the structure of a subject table record 460. It is a vertical stack of fields, with a wavy line at the top and bottom indicating it can contain more records. The fields are as follows:

- 466(1) SITE RECORD NUMBER
- 466(2) OBJECT TYPE
- 466(3) CREATOR ID
- 466(4) OBJECT ID
- 466(5) POINTER INTO SUBJECT TABLE 462
- 466(6) ATTRIBUTE(S)
- 466(7) MINIMUM REGISTRATION INTERVAL
- 466(8) TAG TO SUBJECT TABLE RECORD
- 466(9) CHECK VALUE

Arrows indicate the flow of data:

- An arrow points from field 466(4) to the text "TO OBJECT".
- An arrow points from field 466(5) to the text "TO SUBJECT TABLE RECORD(S)".

A bracket on the right side of the record structure is labeled 460(N), indicating it is one of N records in the table.

FIG. 31

FIG. 32

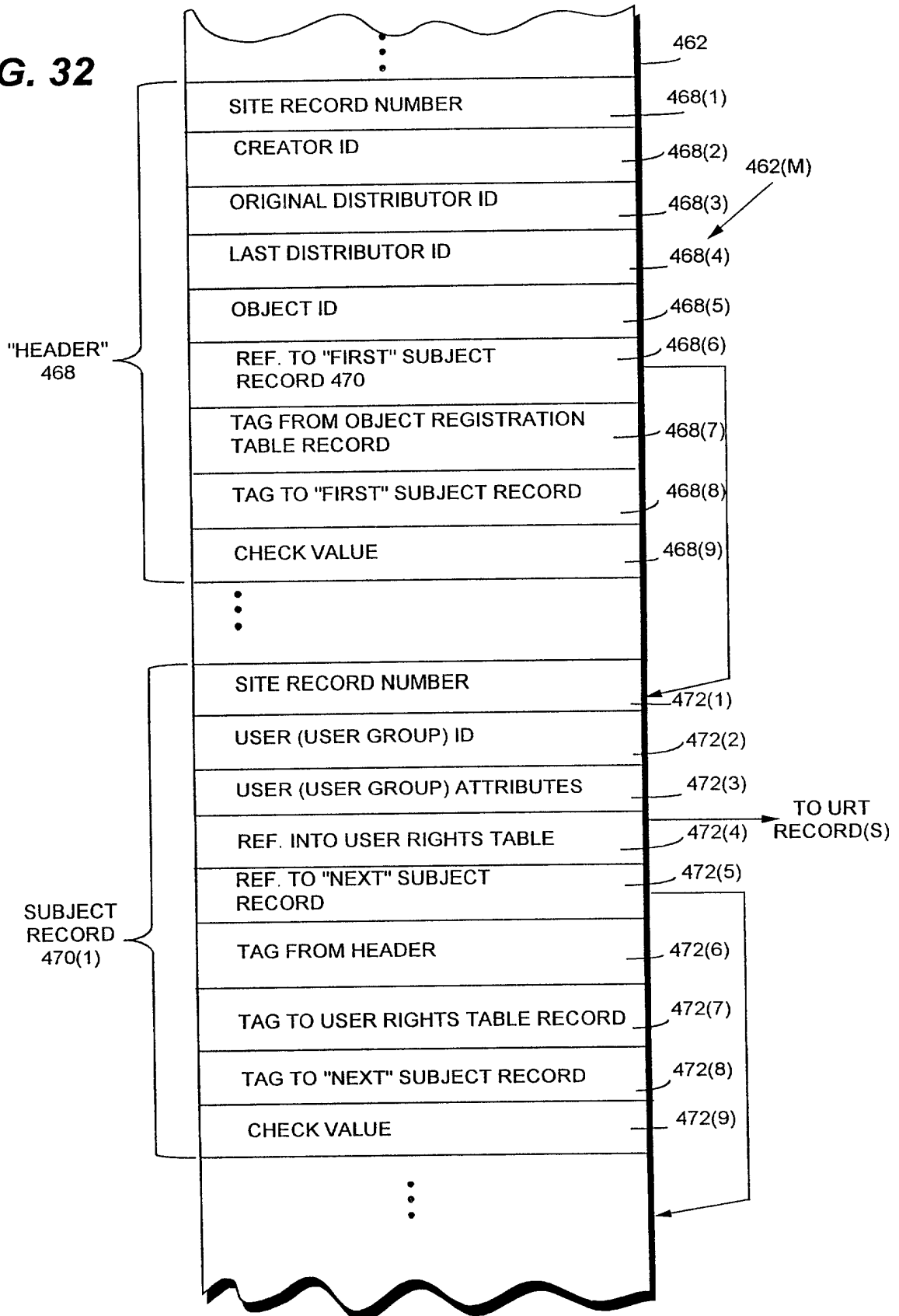


FIG. 33

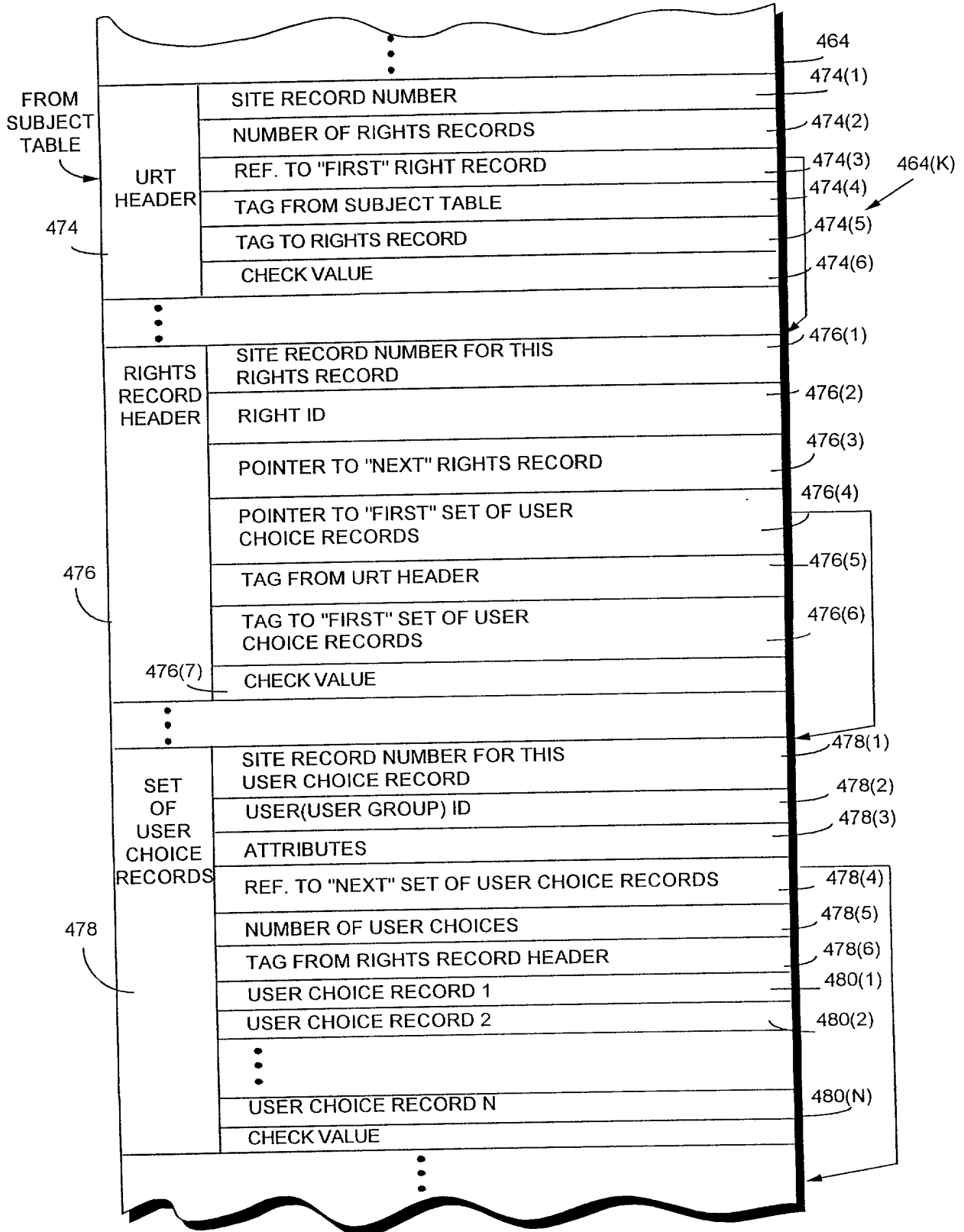


FIG. 34

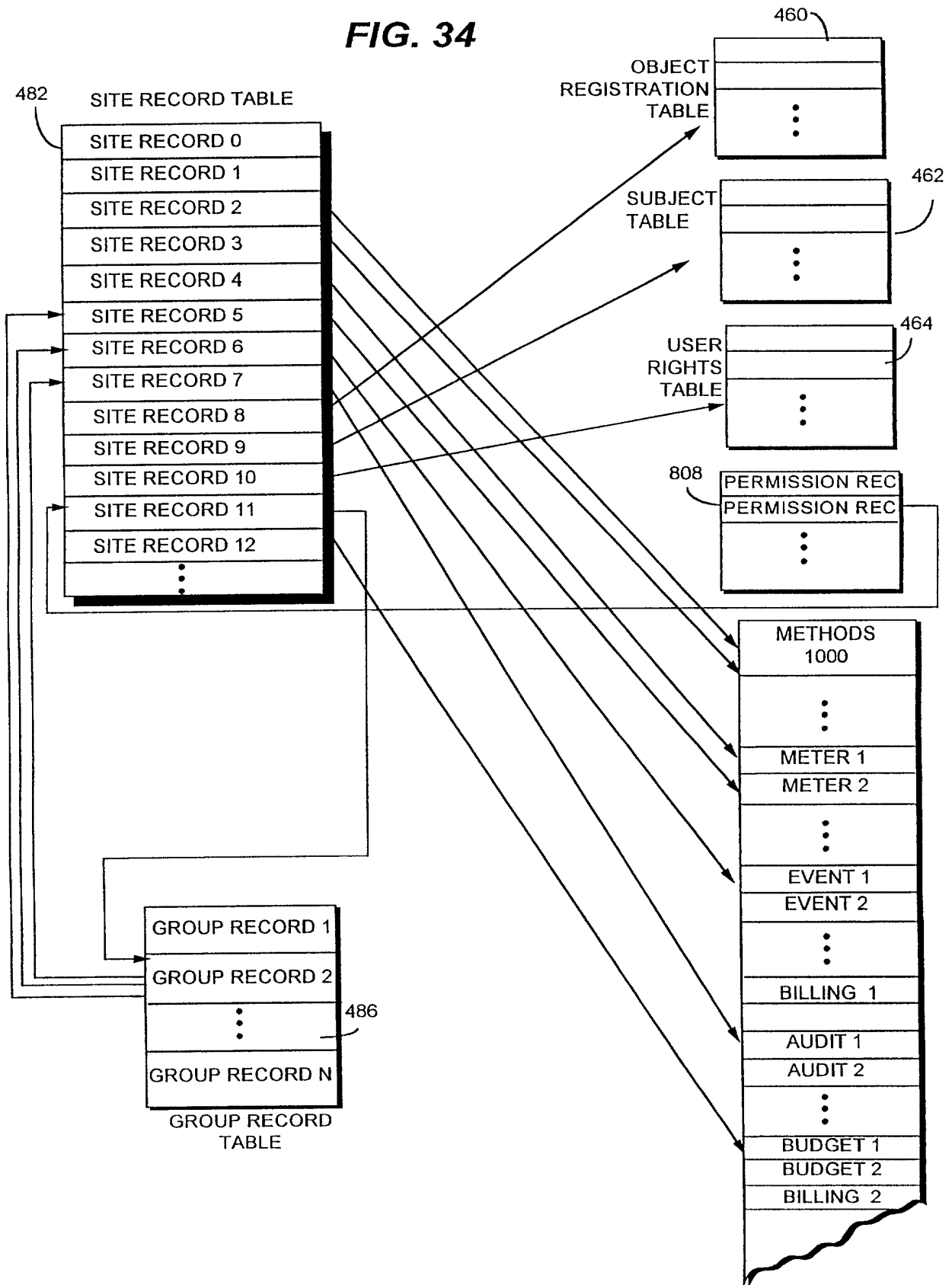


FIG. 34A

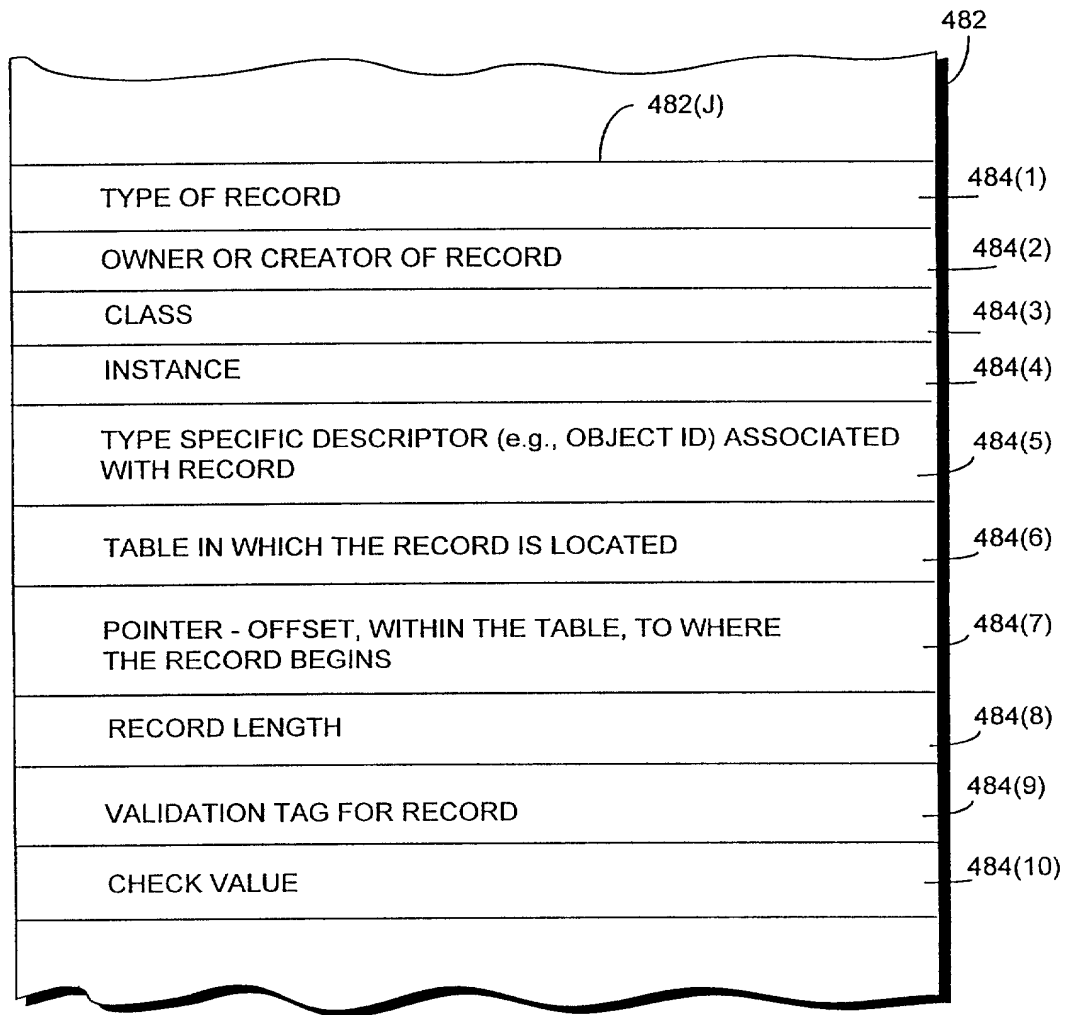


FIG. 34B

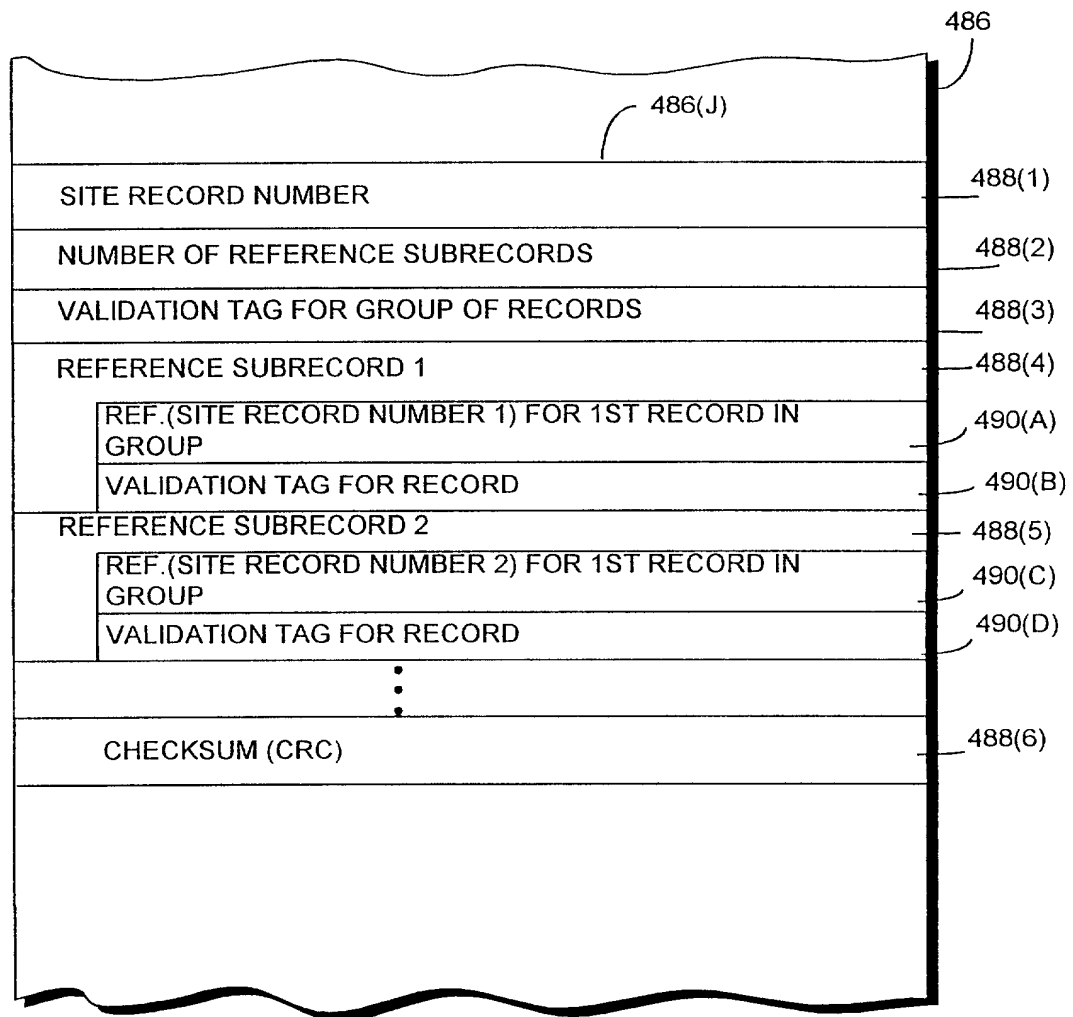


FIG. 35

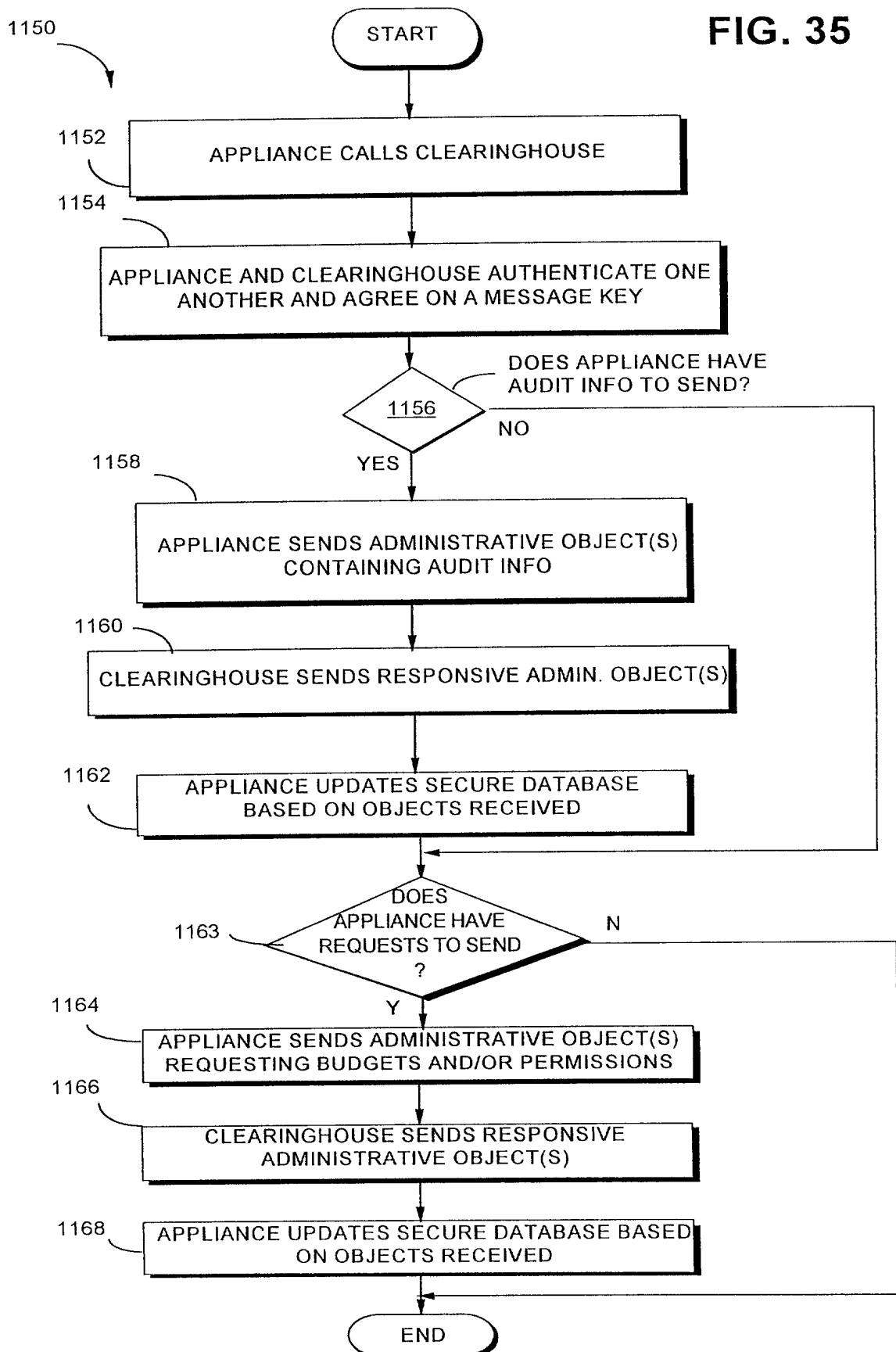


FIG. 36

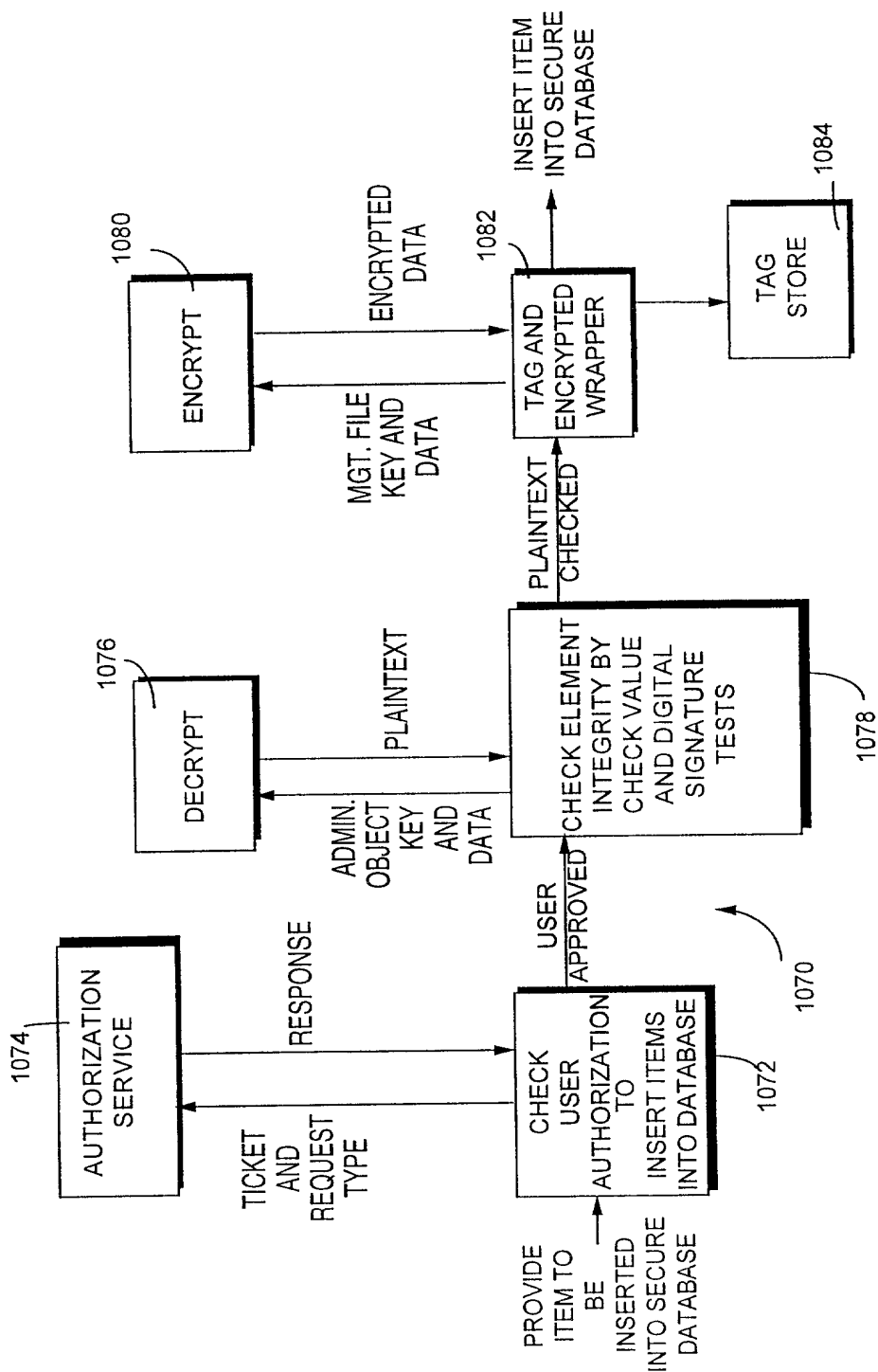


FIG. 37

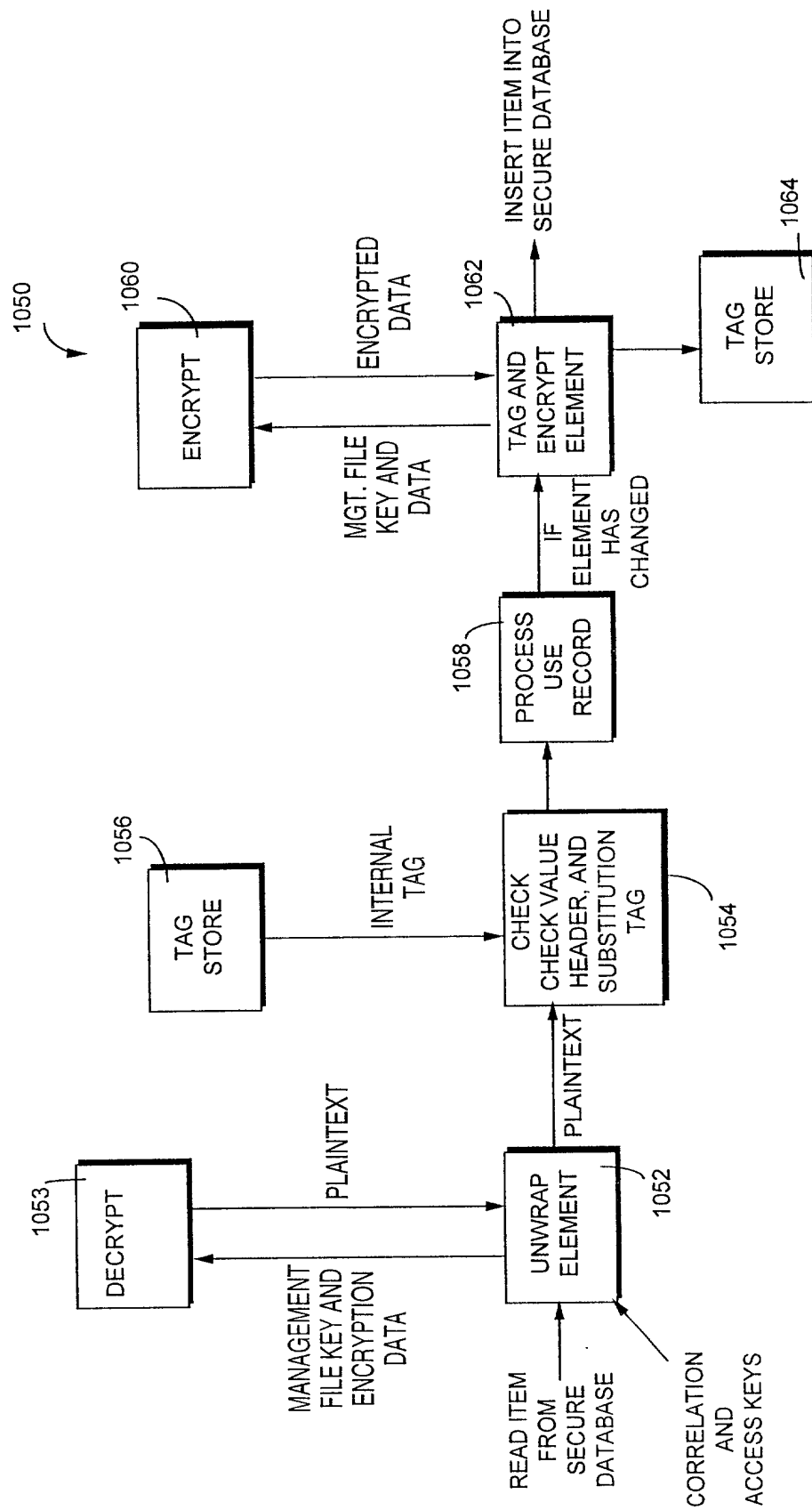


FIG. 38

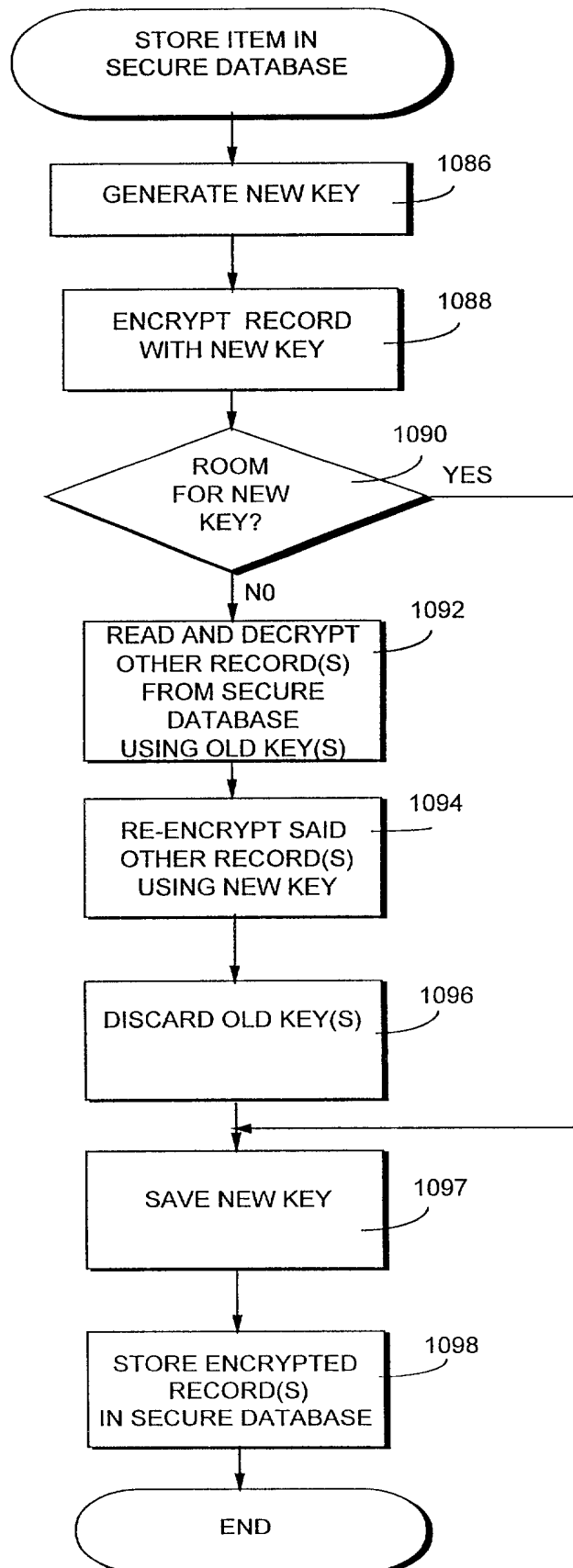


FIG. 39

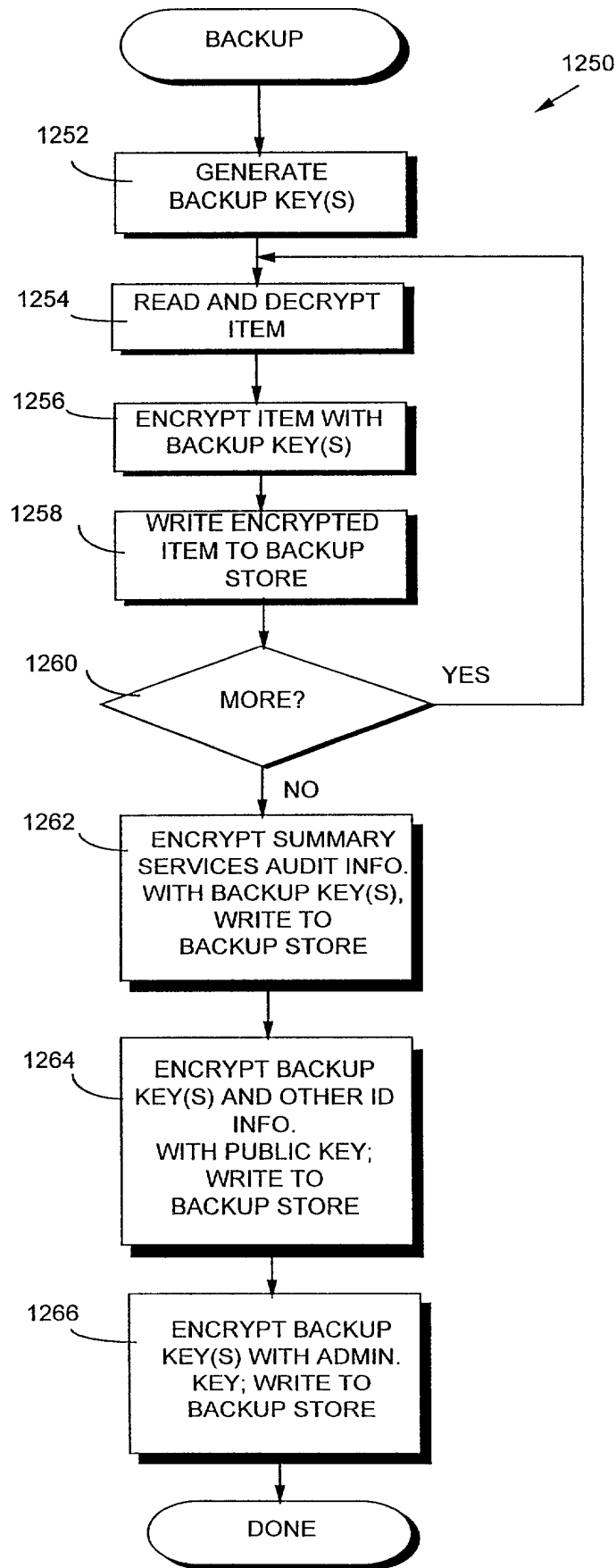
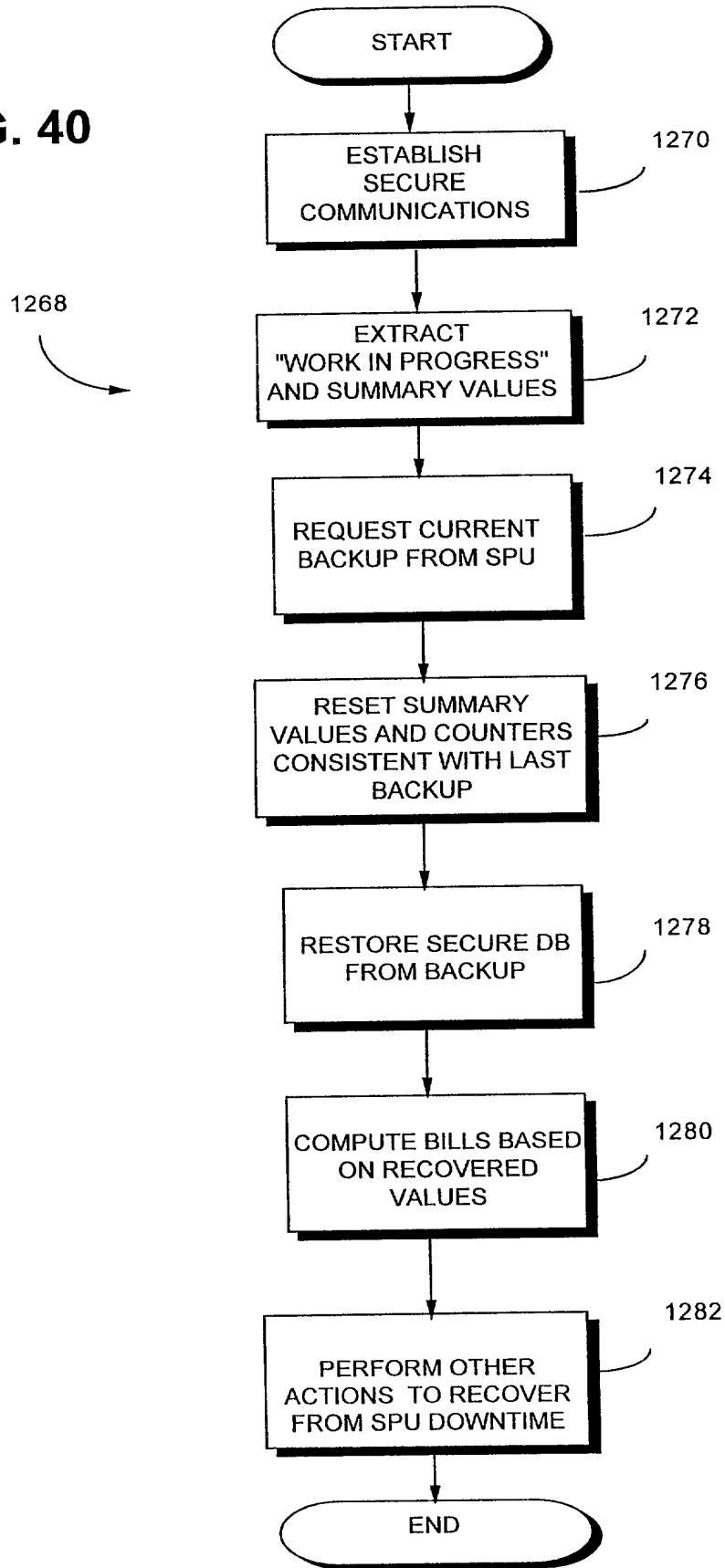


FIG. 40



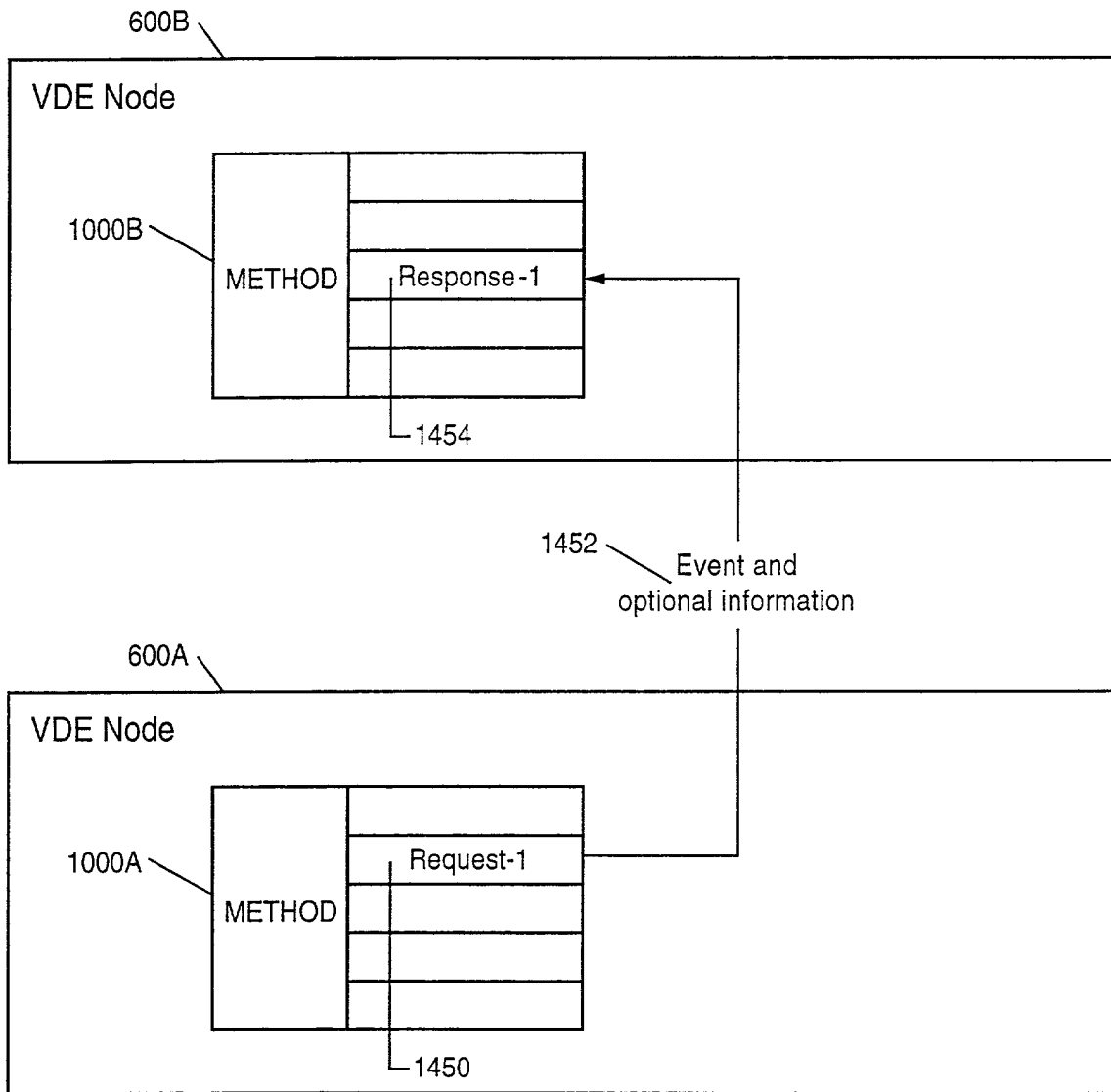


FIG. 41a

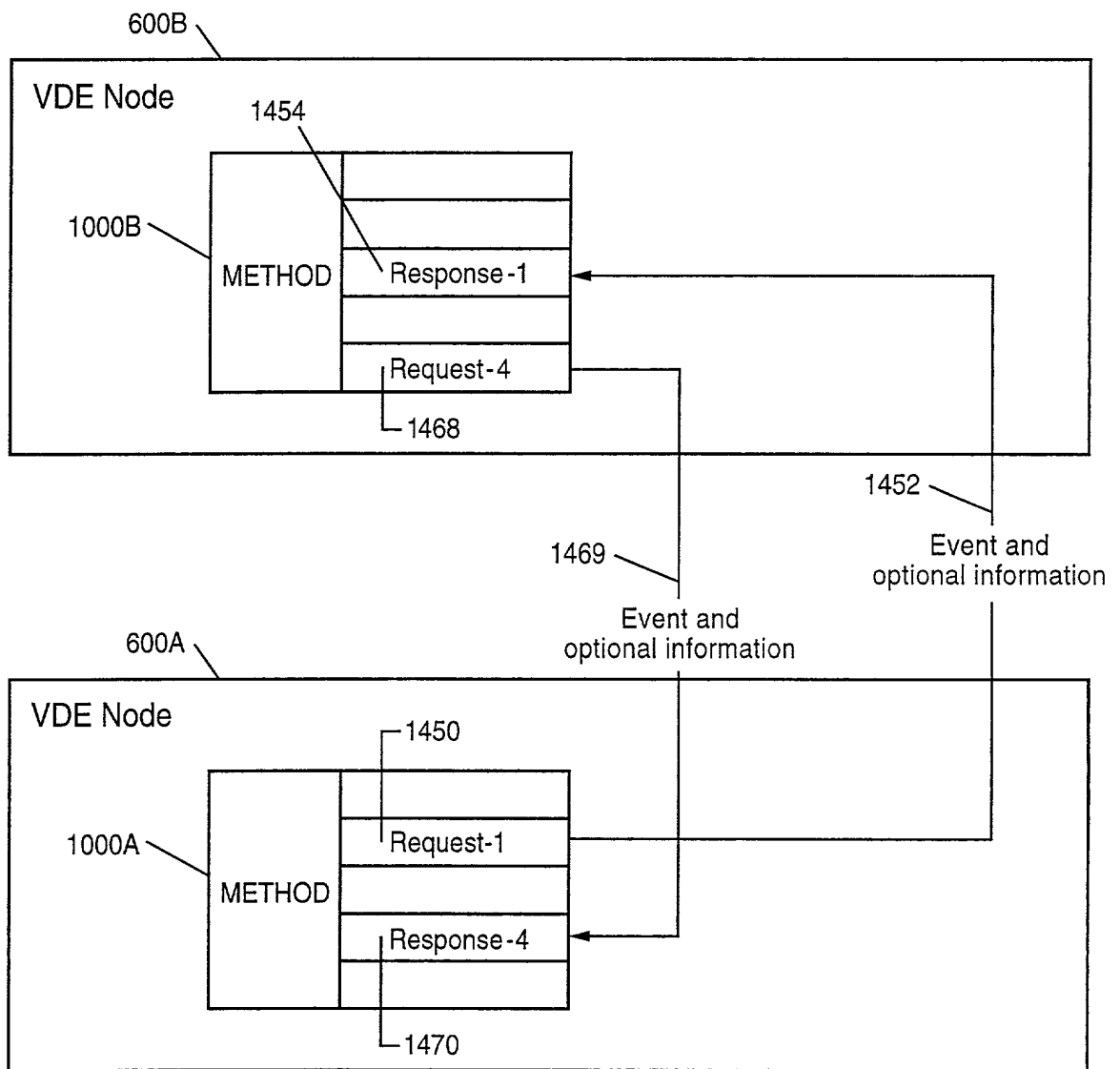


FIG. 41b

FIG. 41c

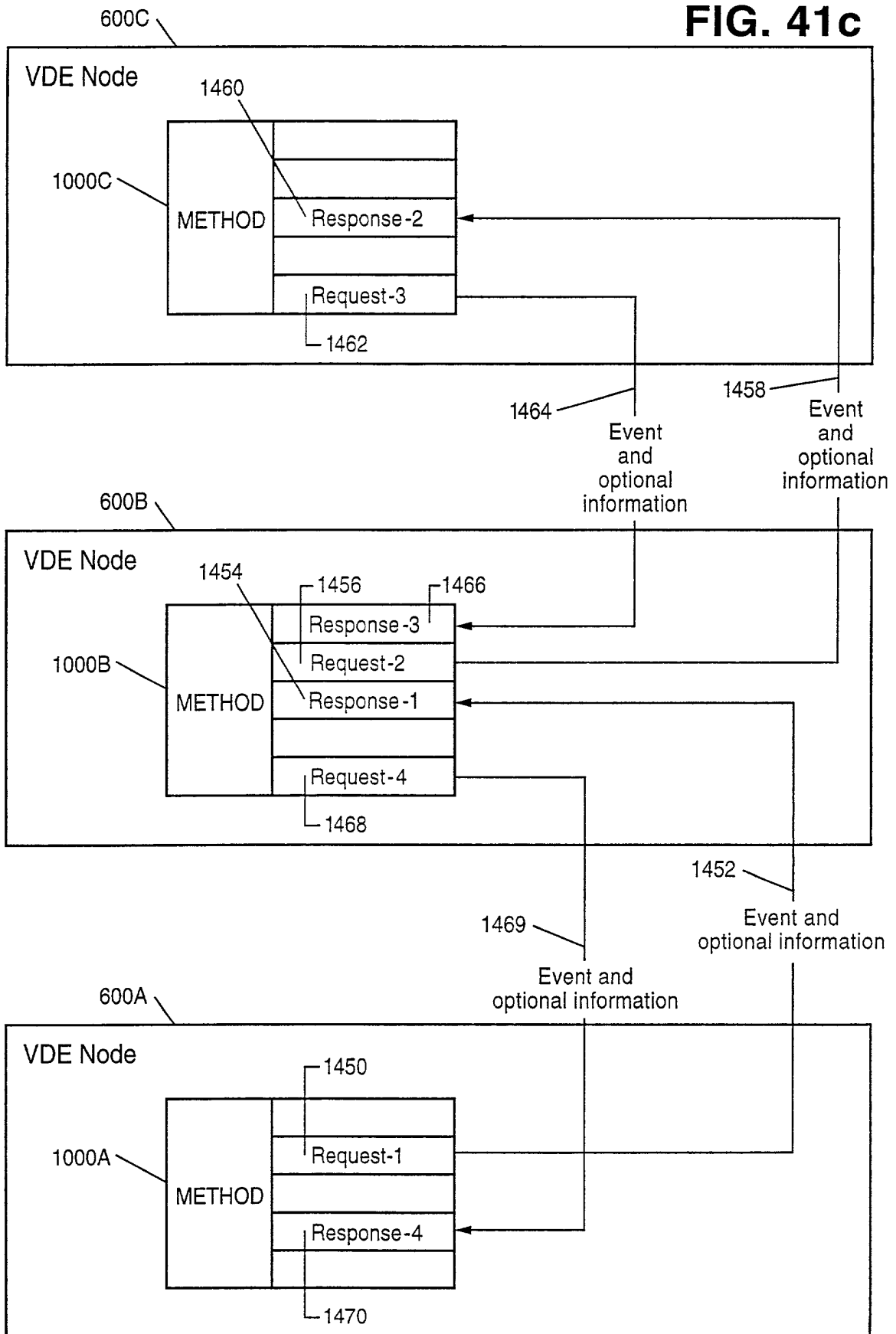
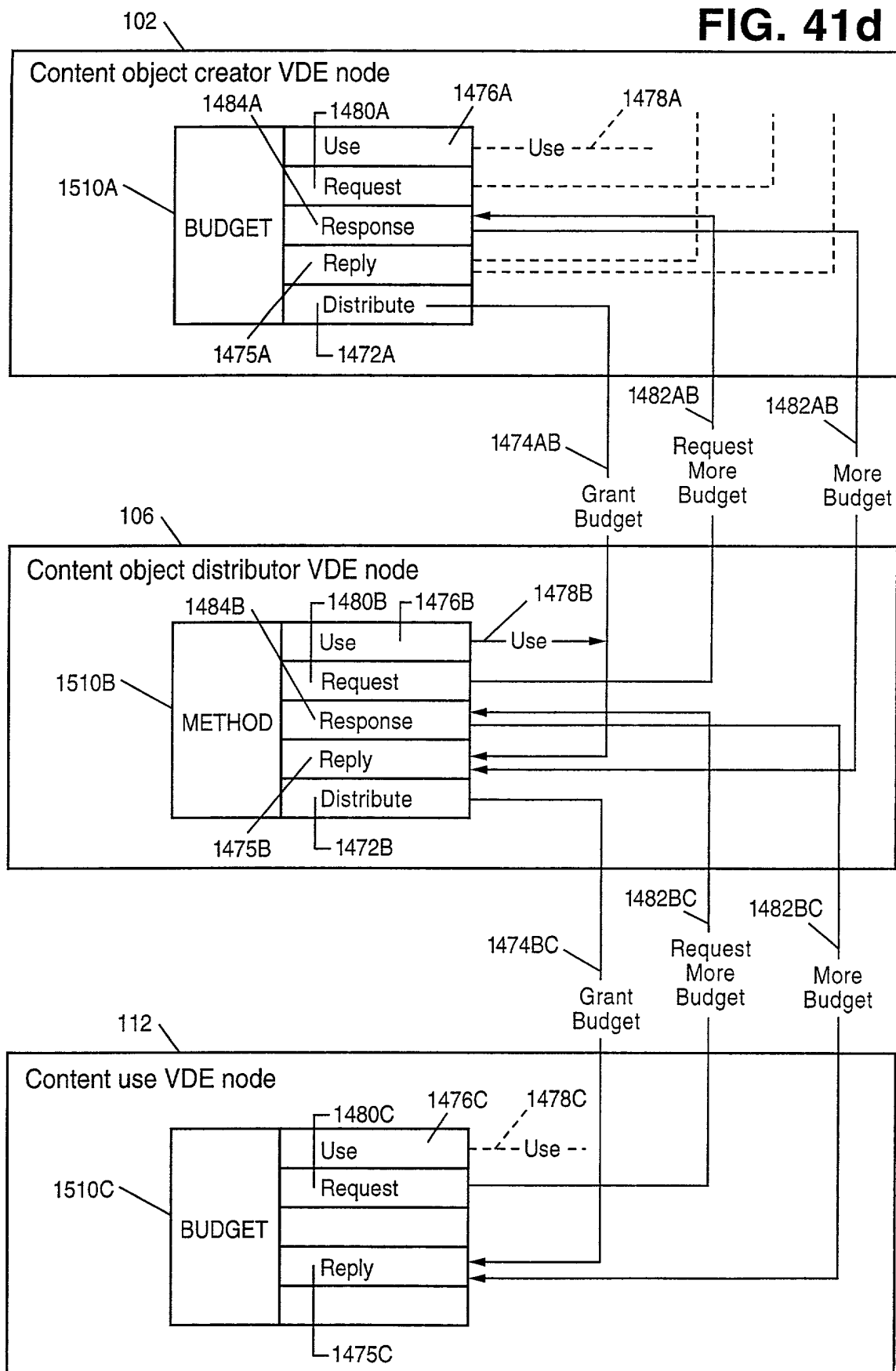


FIG. 41d



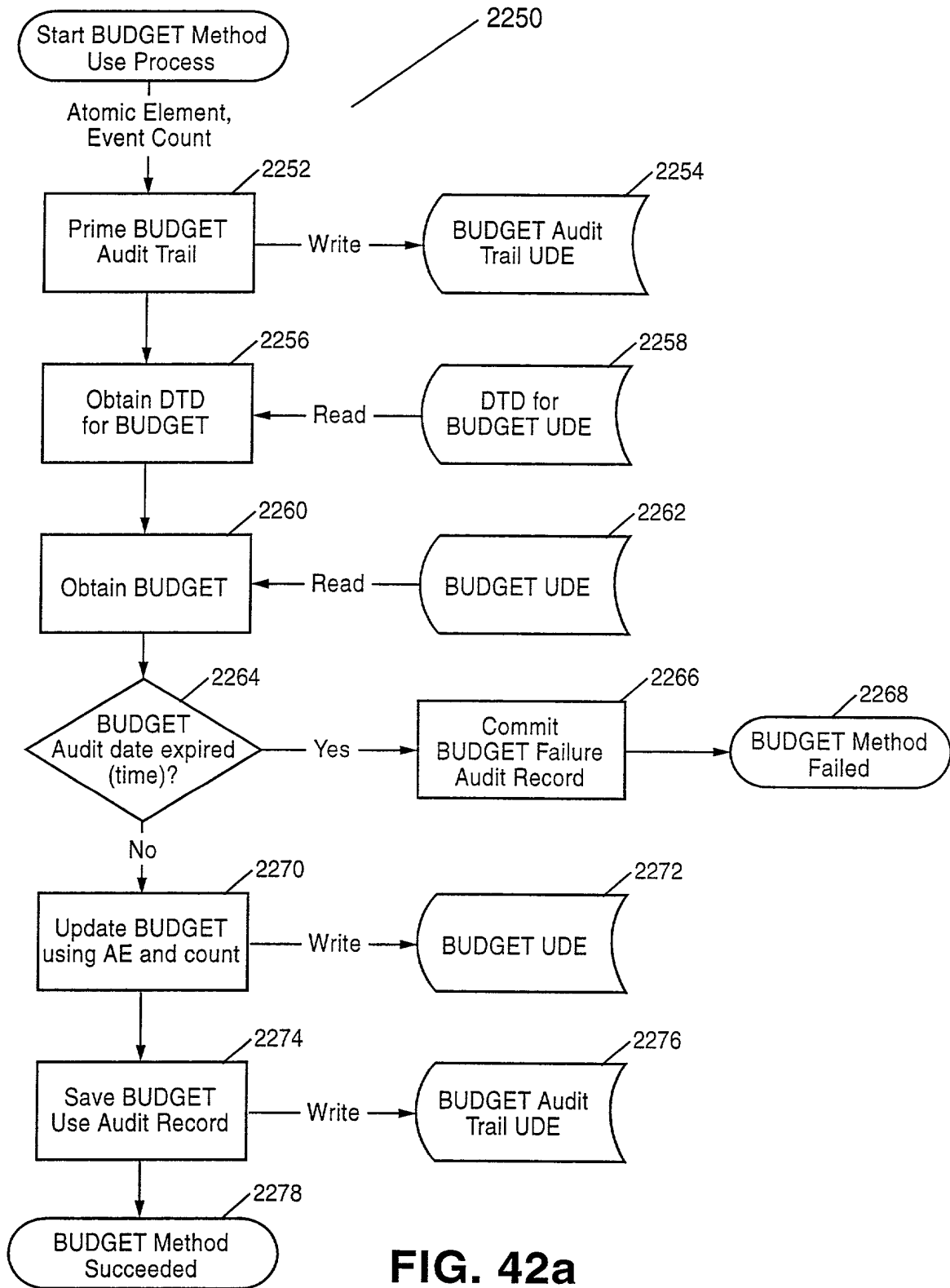
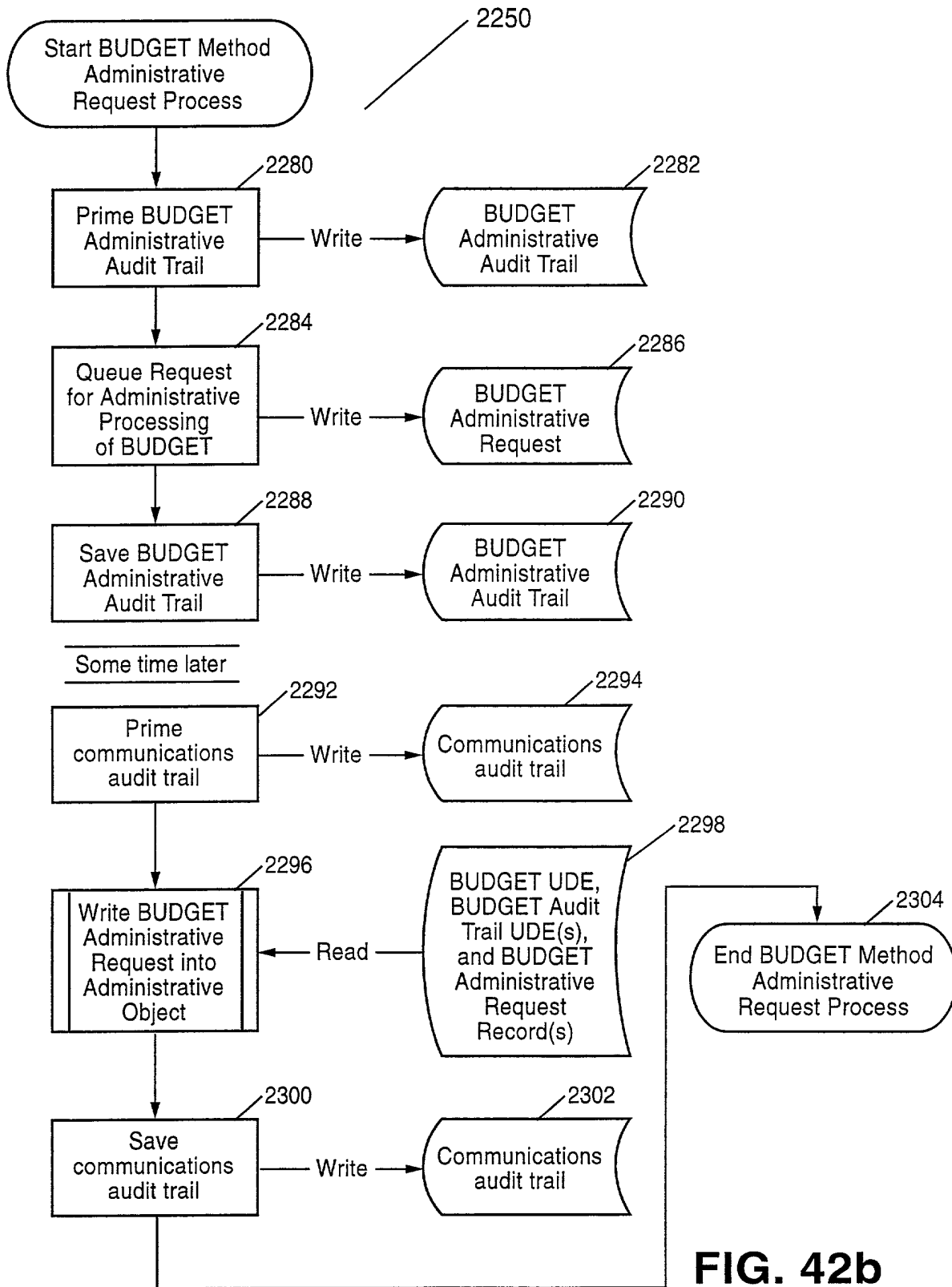


FIG. 42a



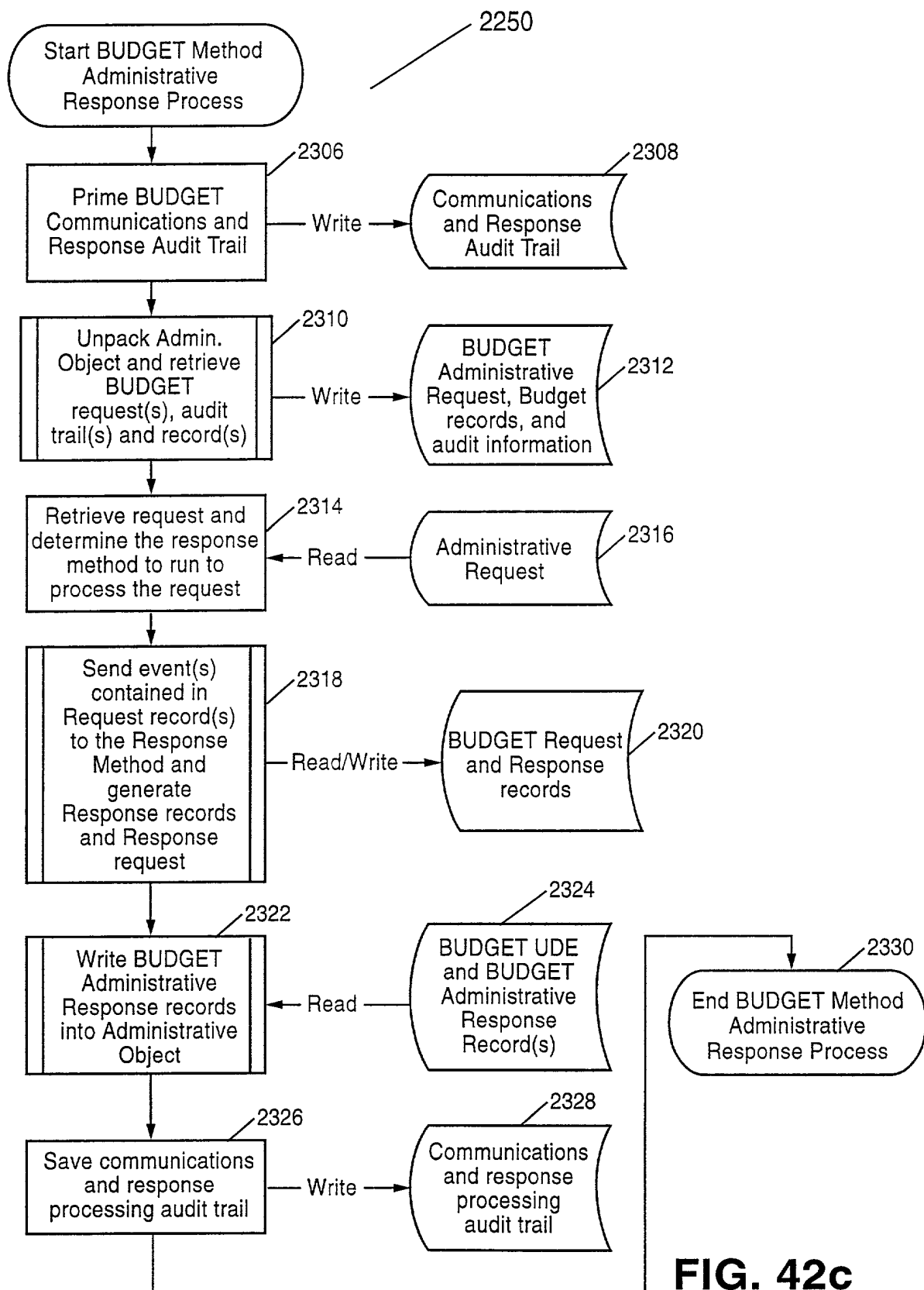


FIG. 42c

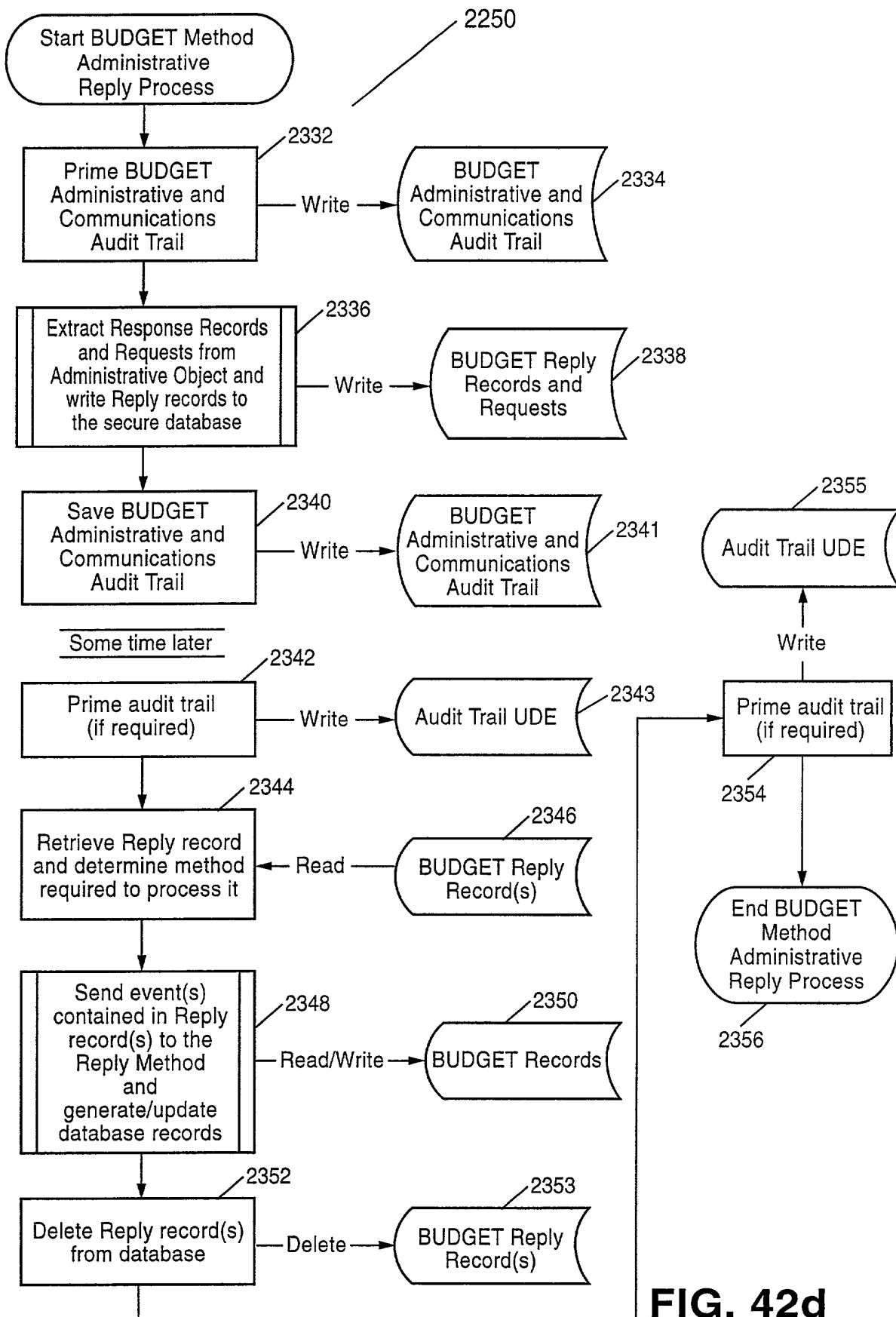


FIG. 42d

FIG. 43a

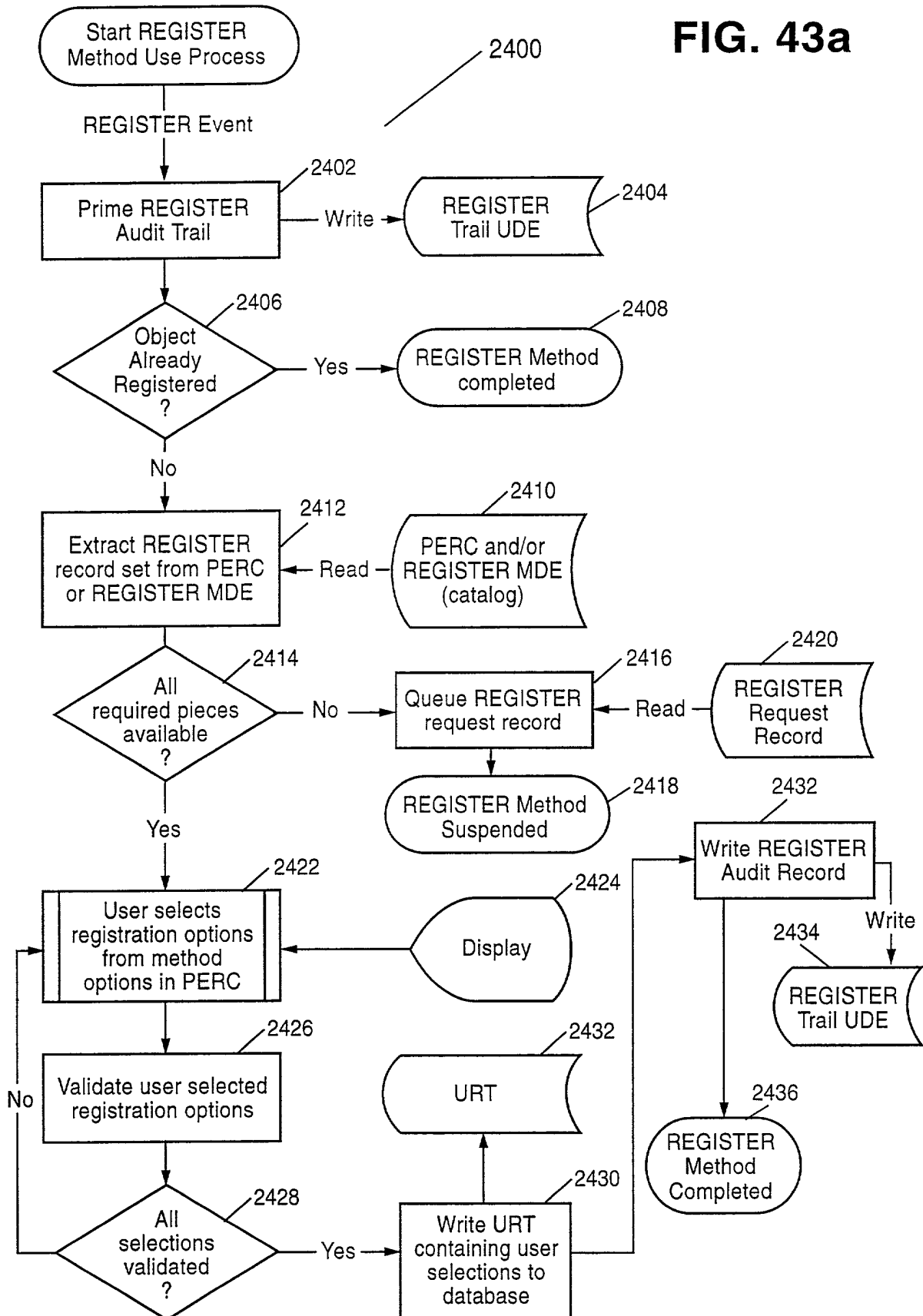
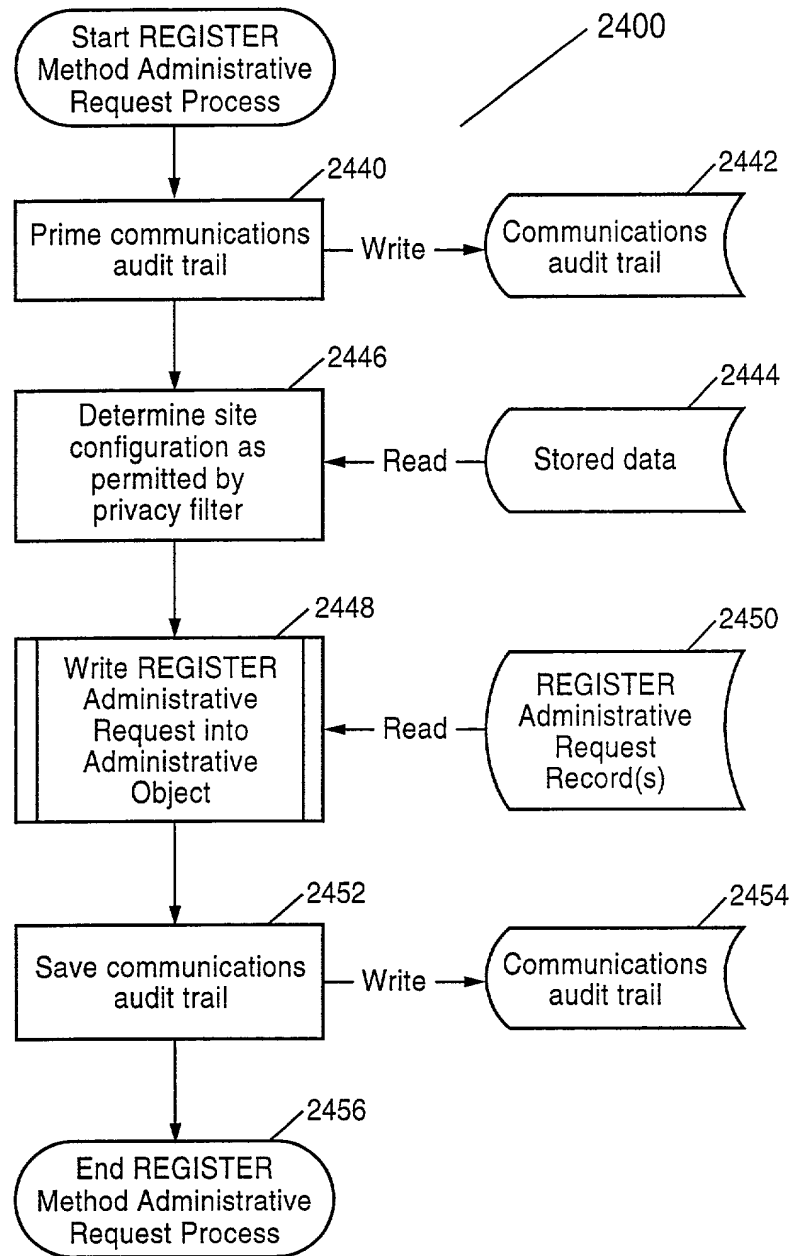


FIG. 43b



006430 0200

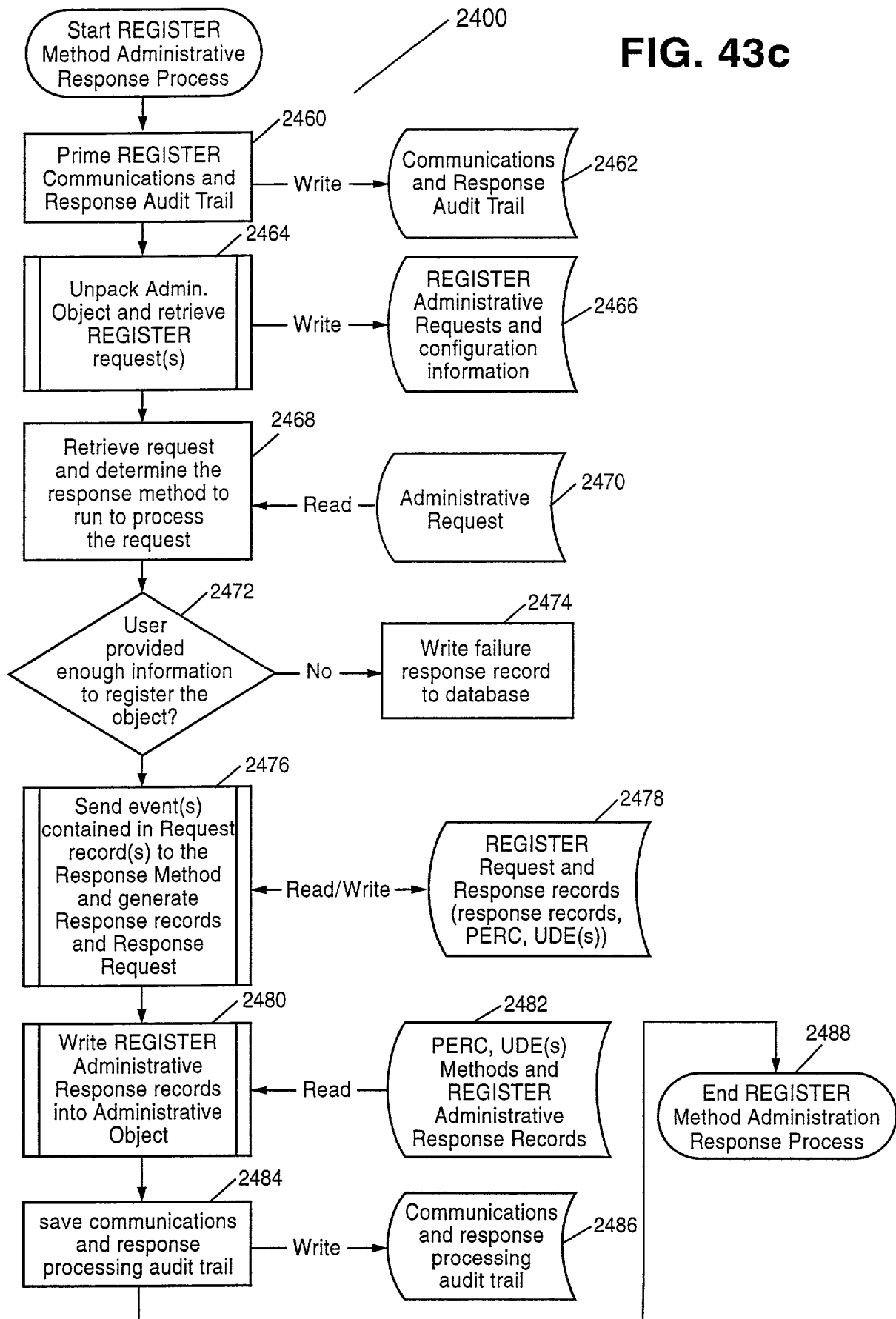


FIG. 43d

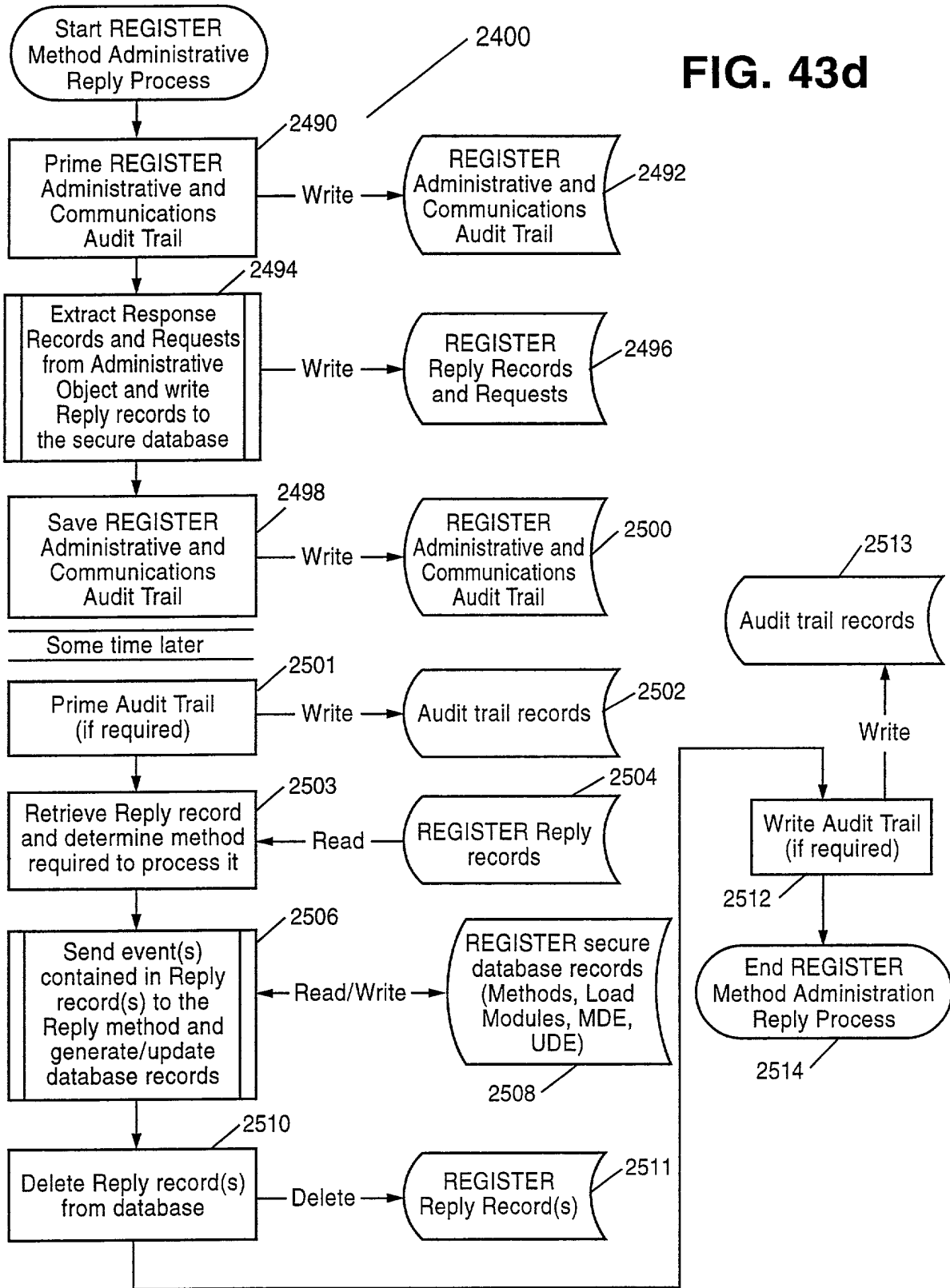


FIG. 44a

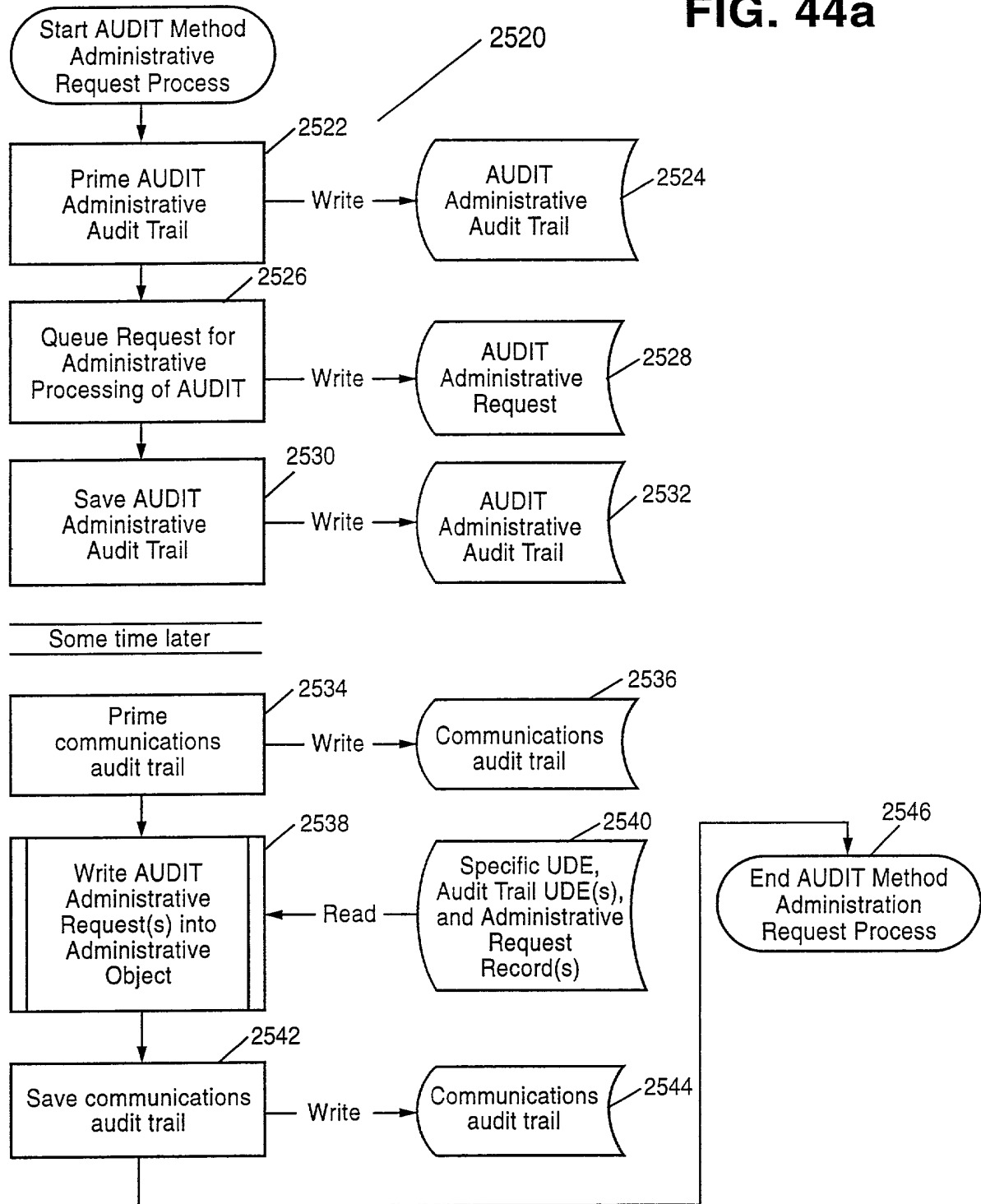


FIG. 44b

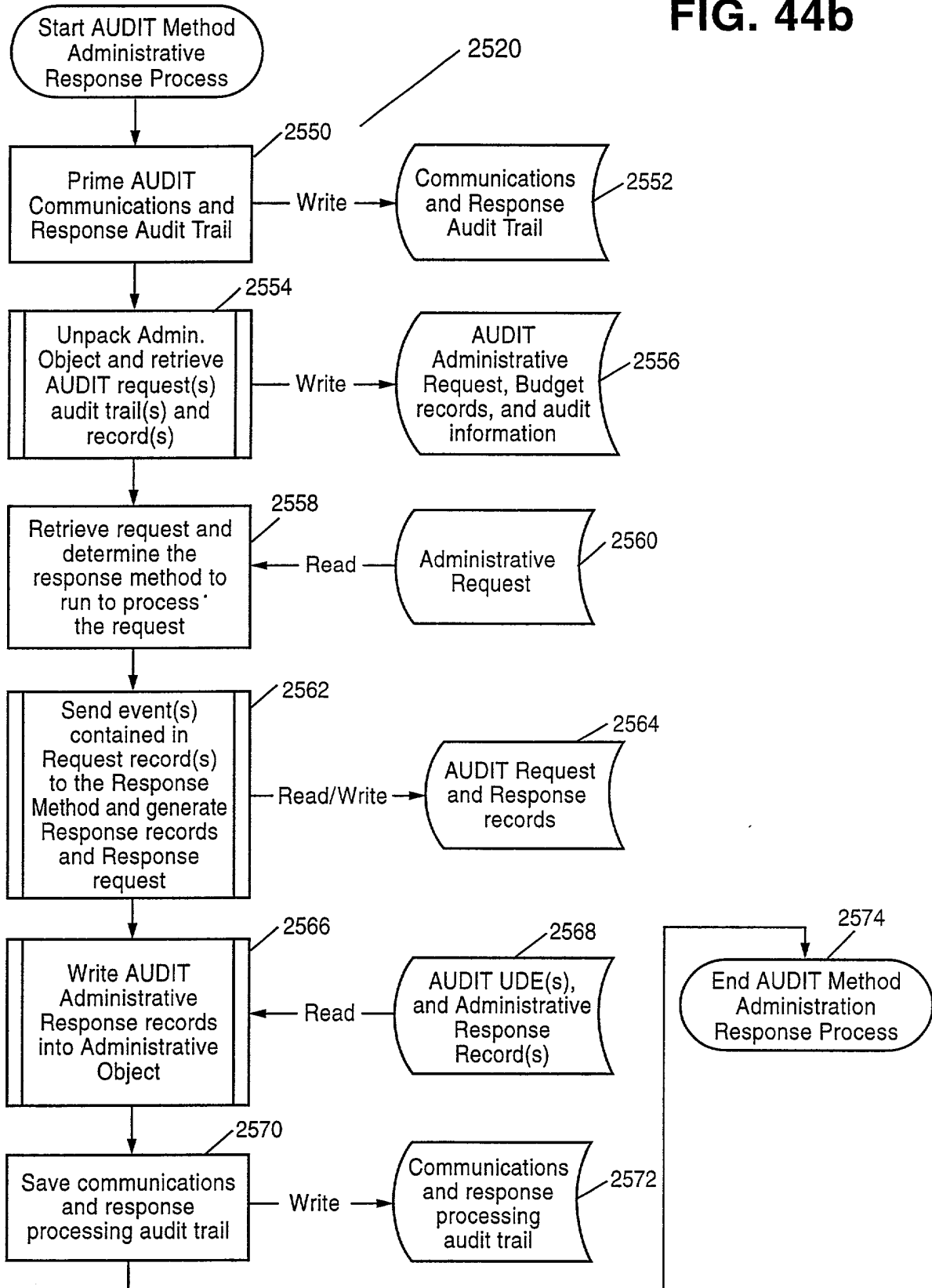


FIG. 44c

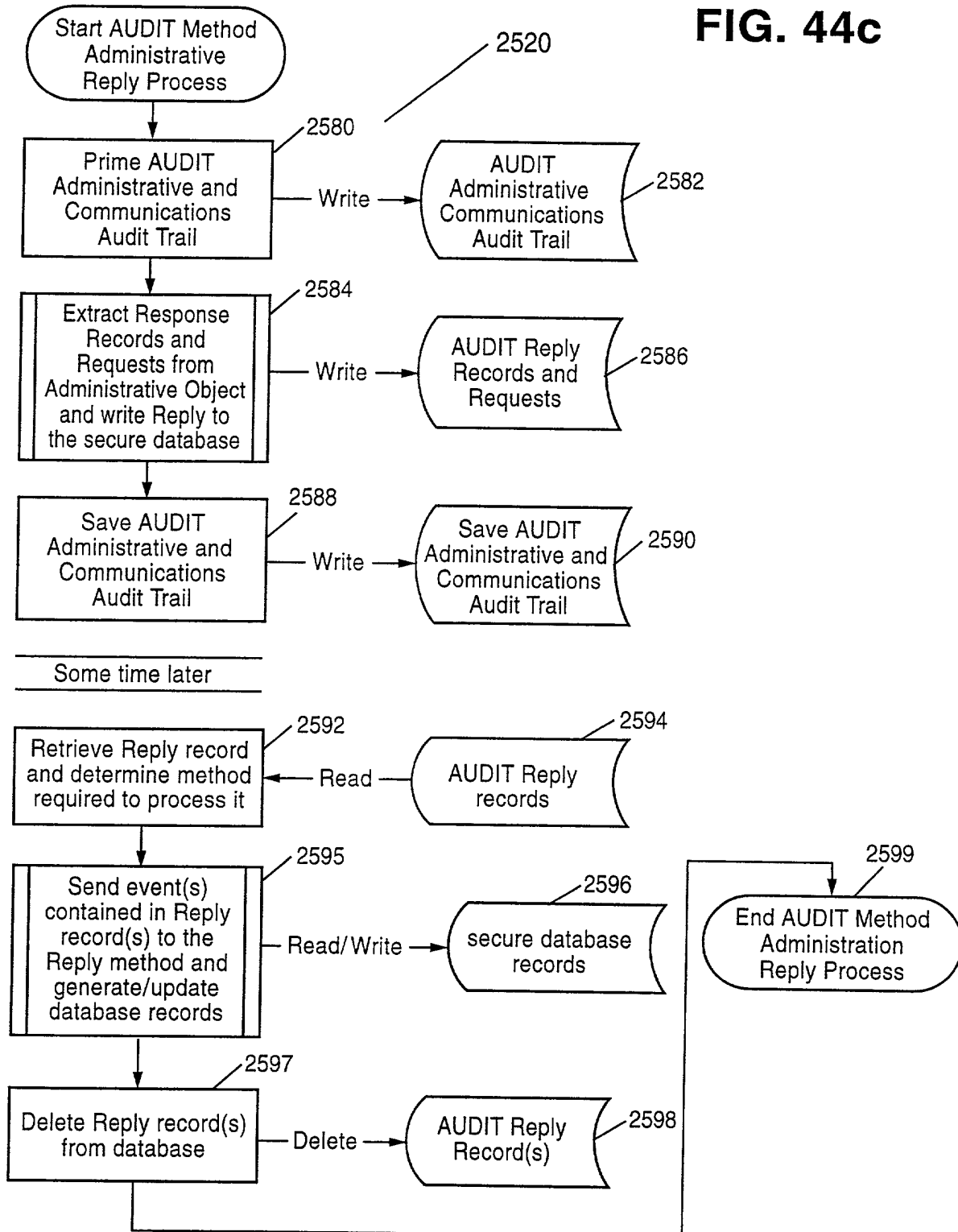


FIG. 45

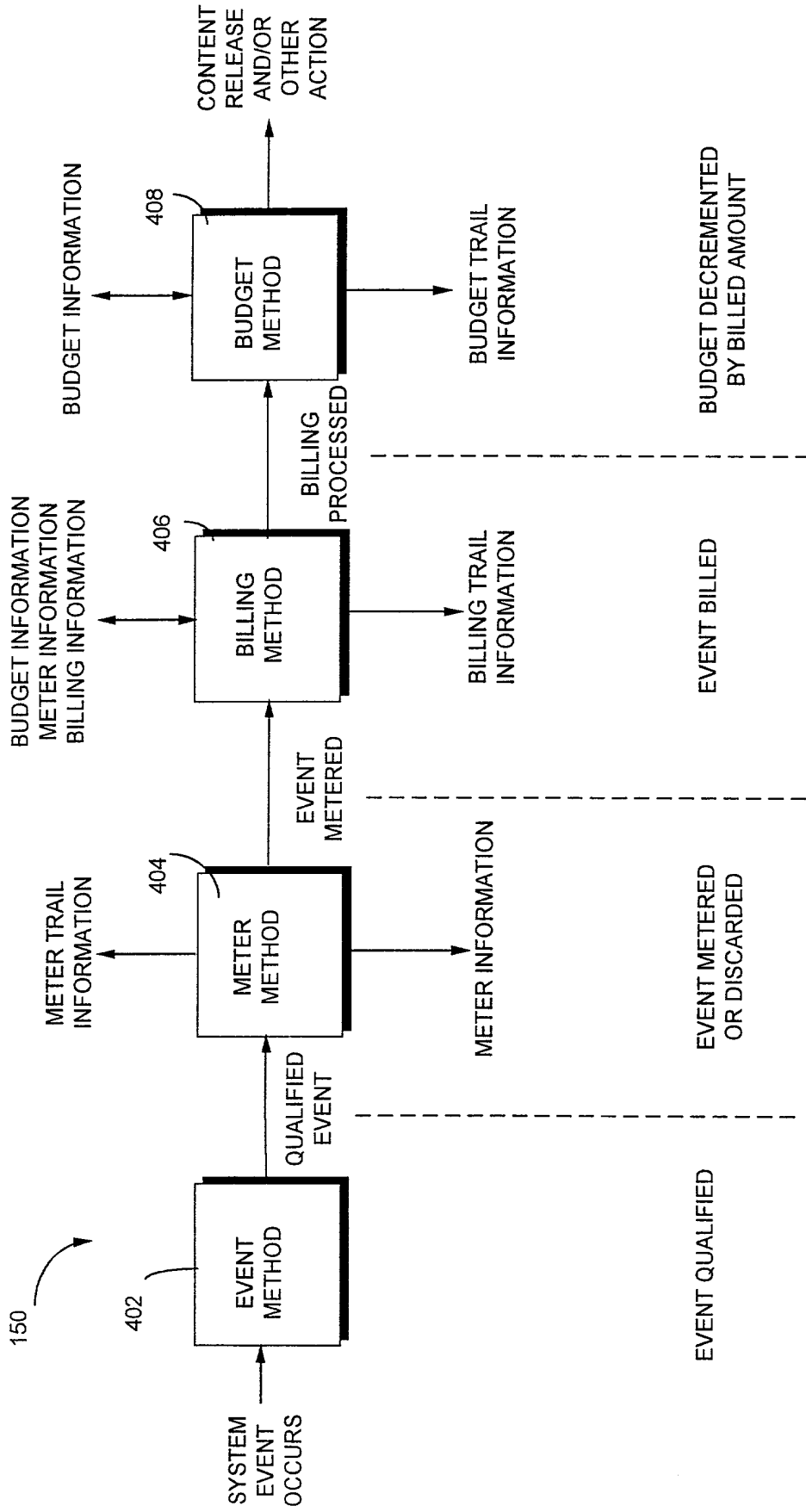


FIG. 46

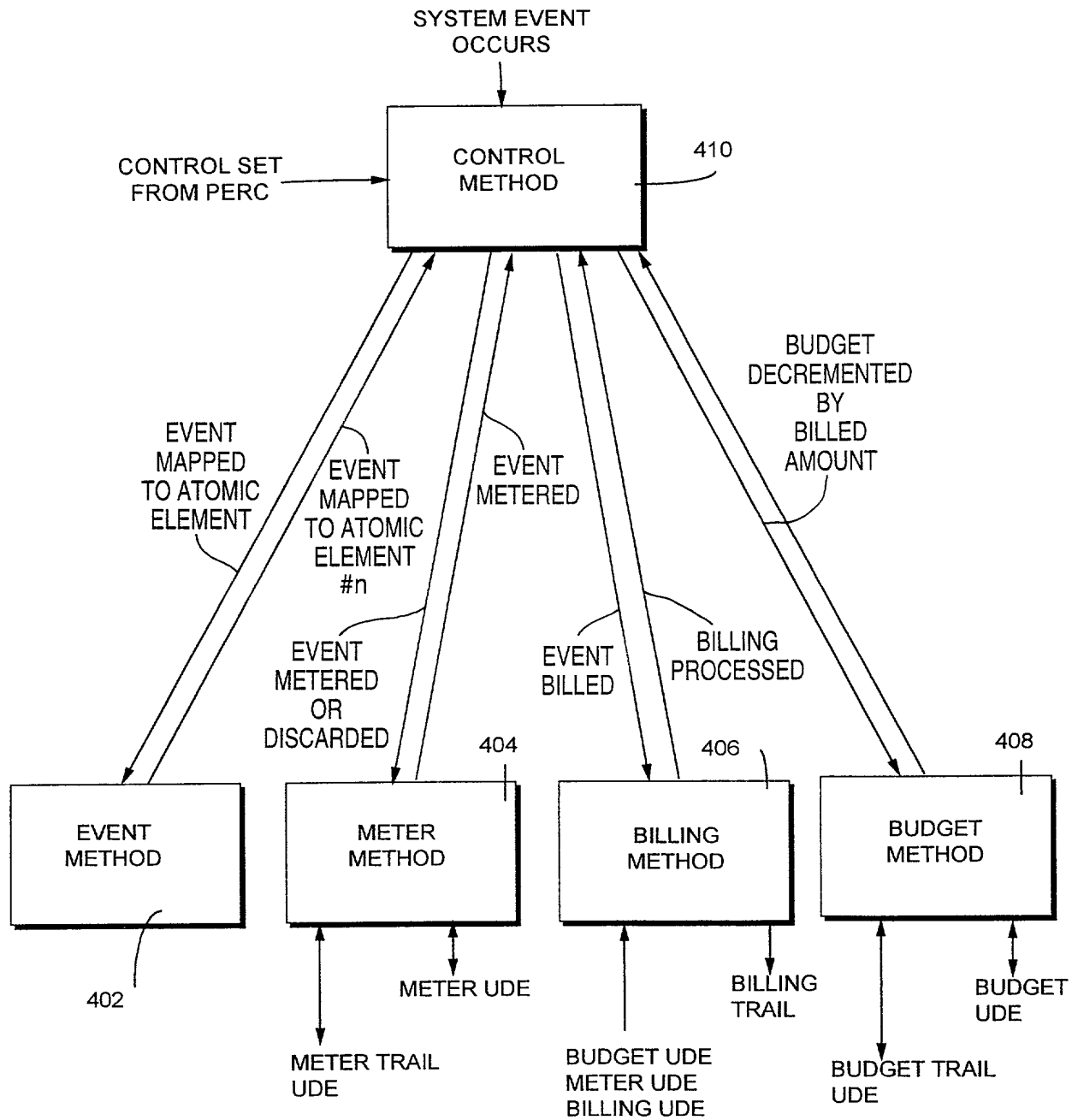
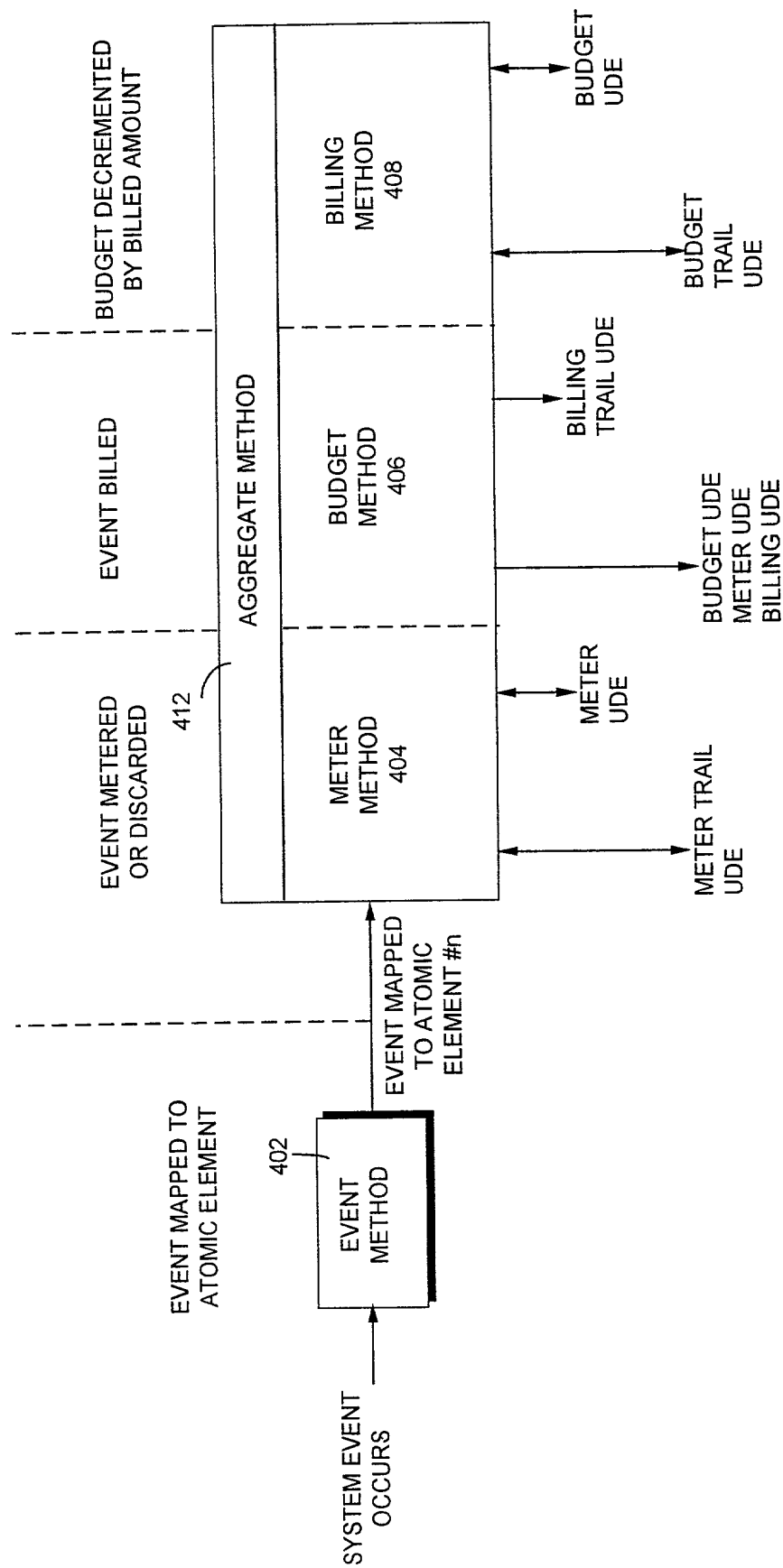


FIG. 47



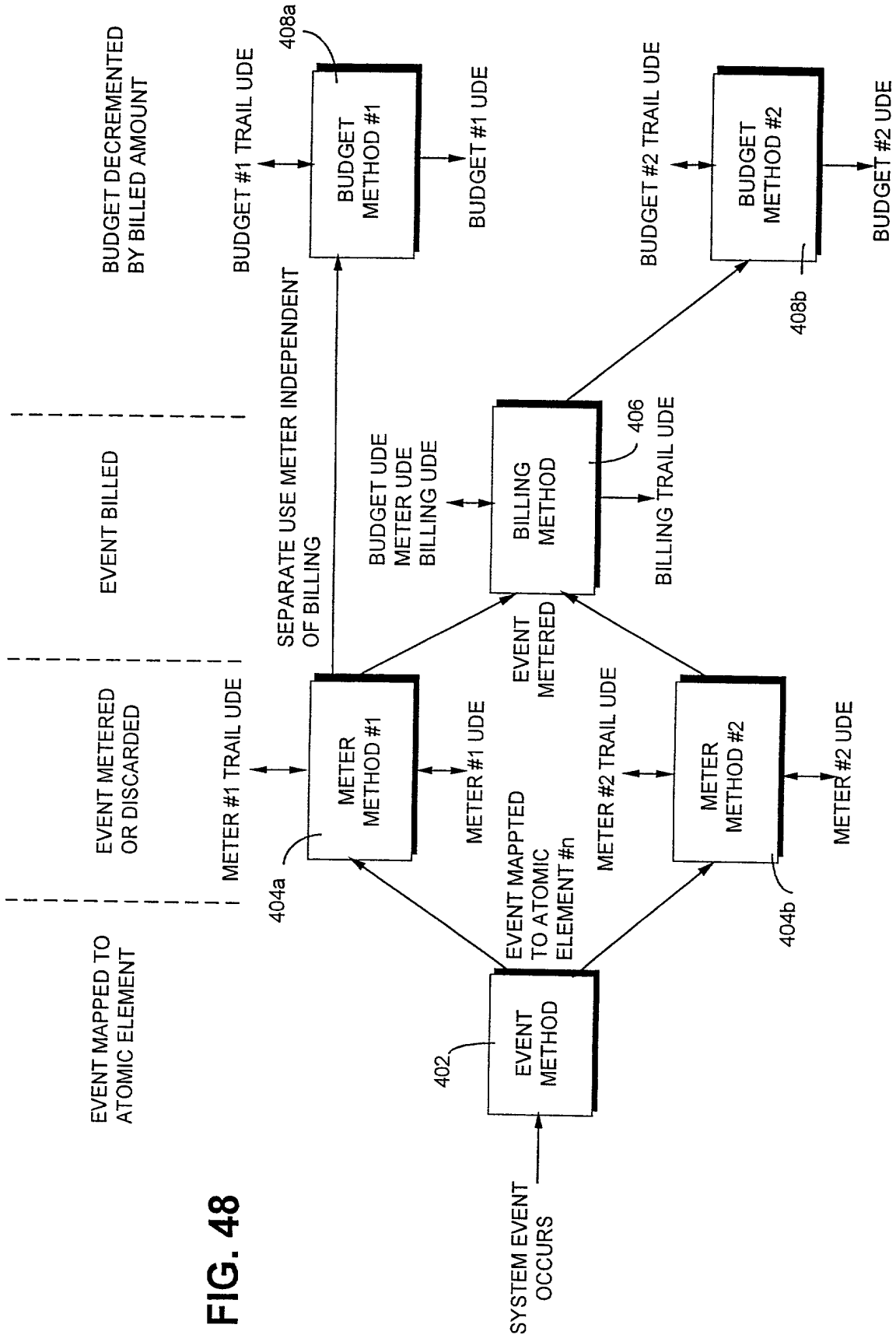


FIG. 48

0764370.072304

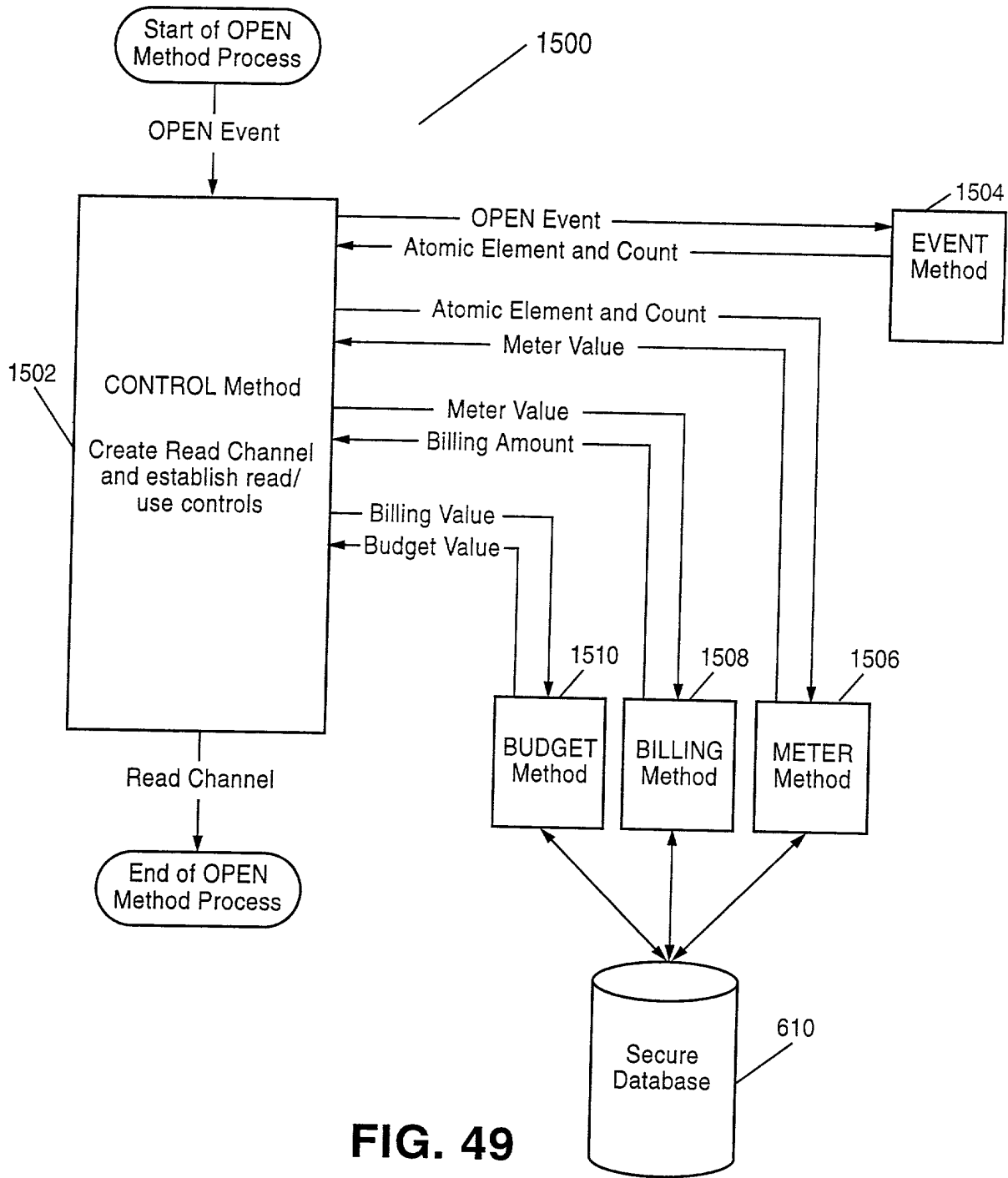


FIG. 49

FIG. 49a

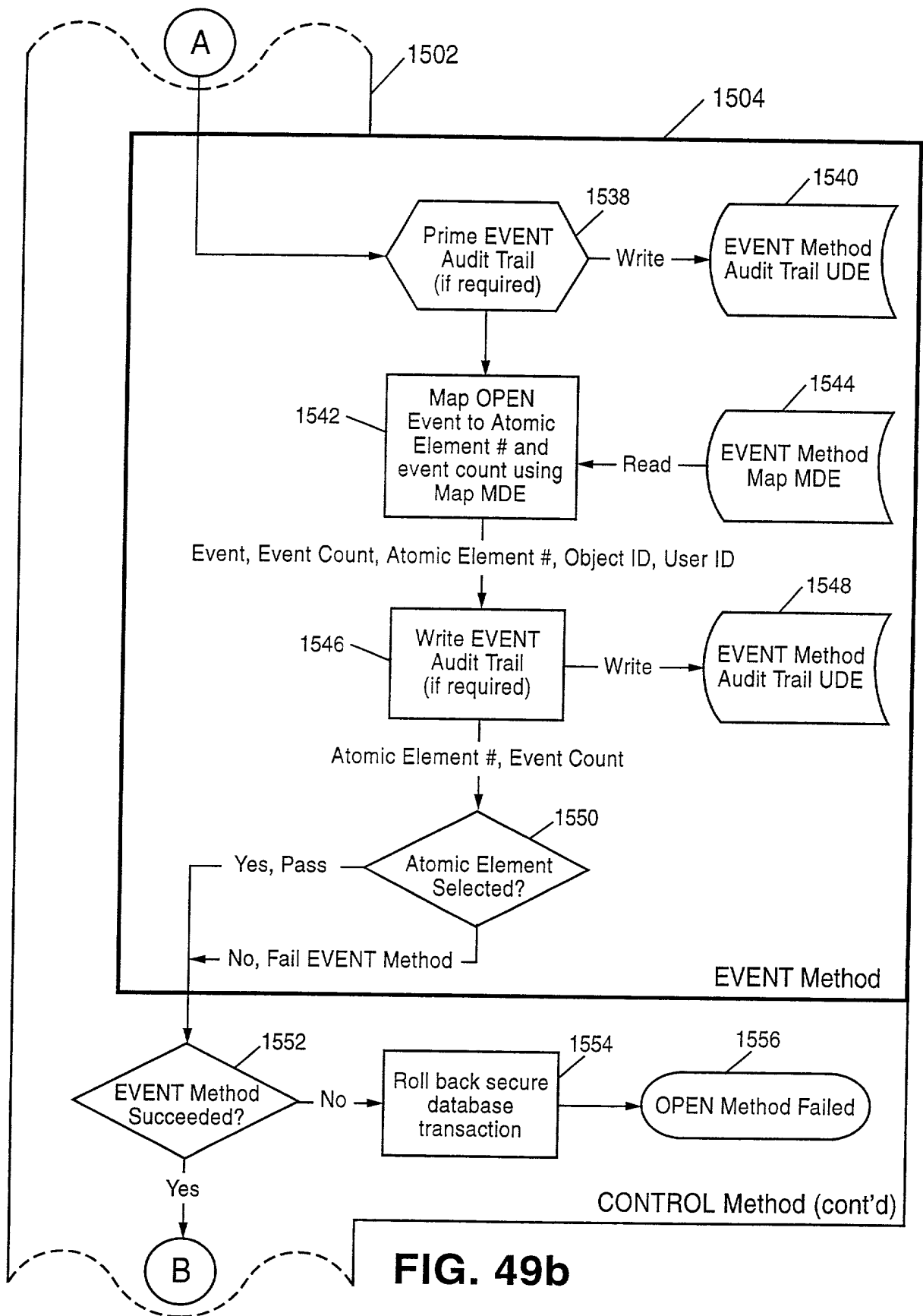


FIG. 49b

FIG. 49c

FIG. 49d

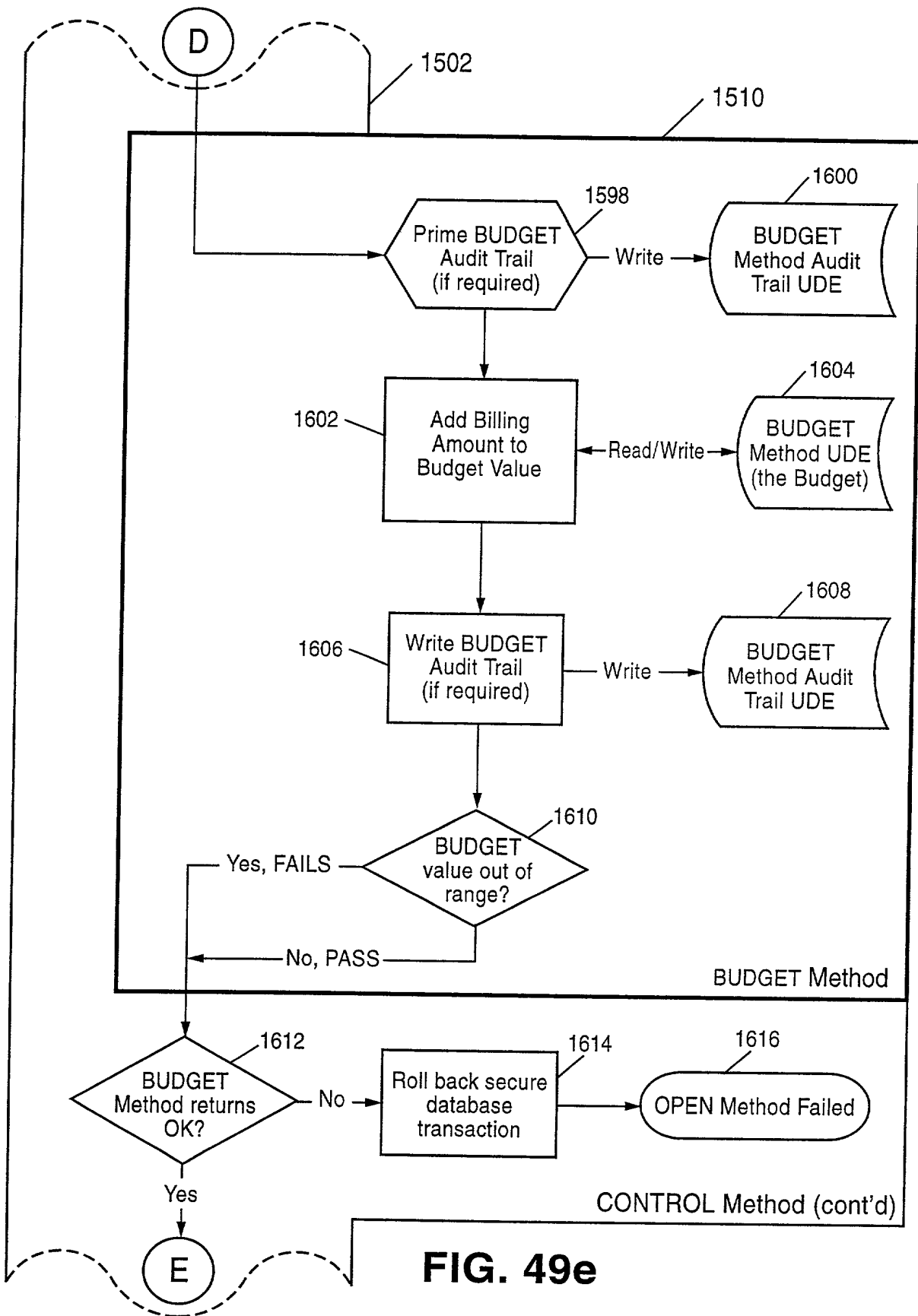


FIG. 49e

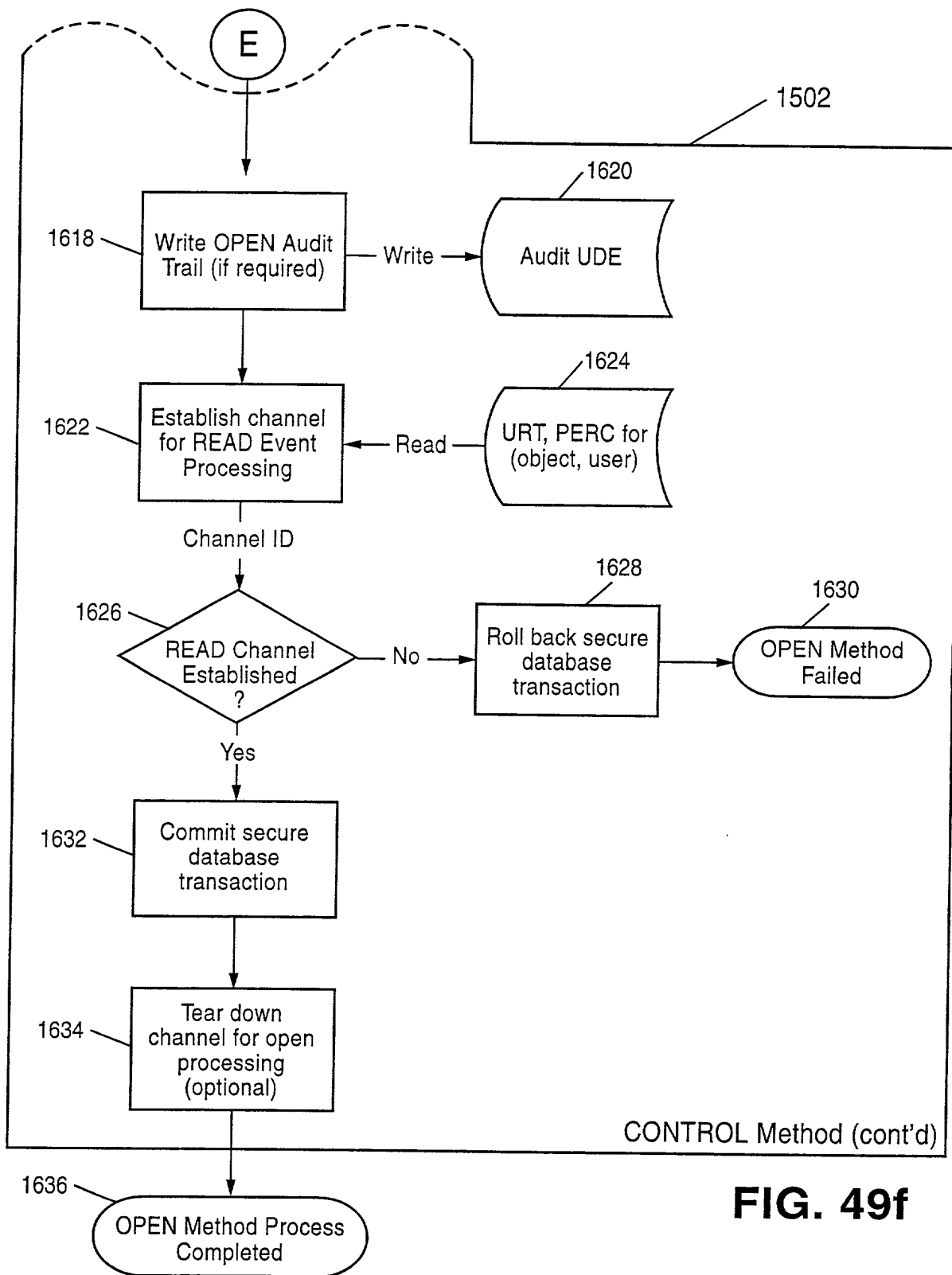
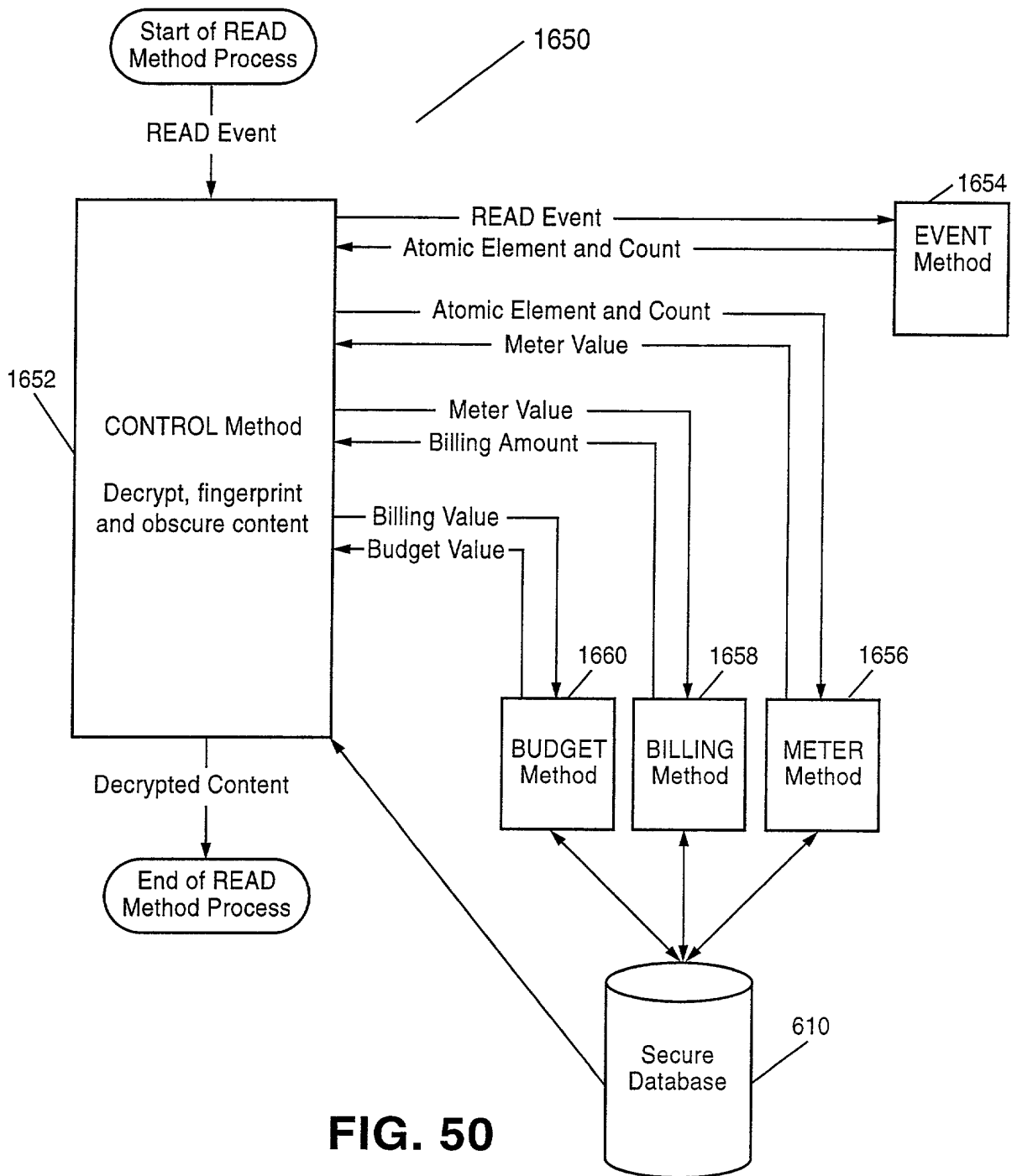
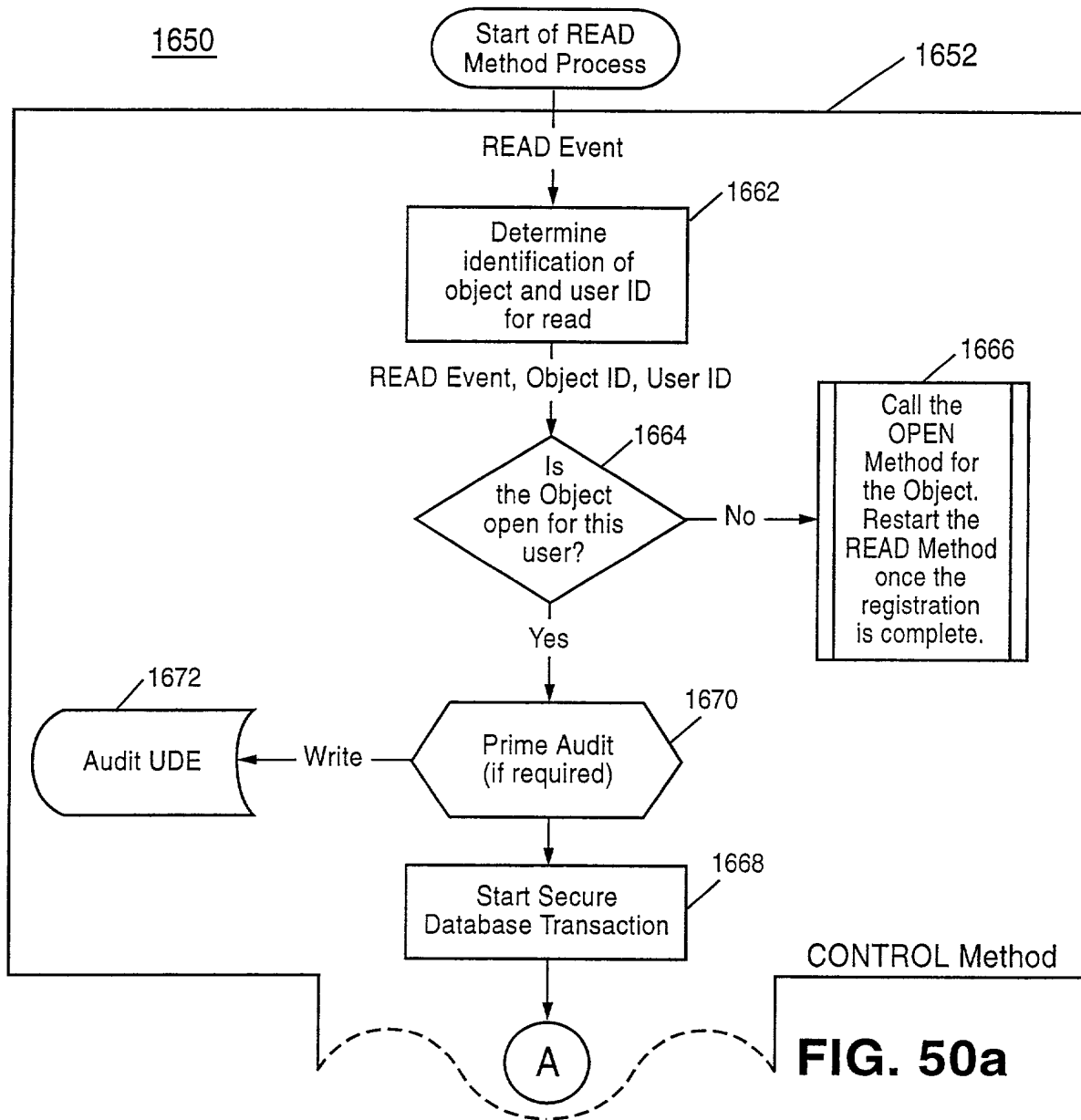


FIG. 49f





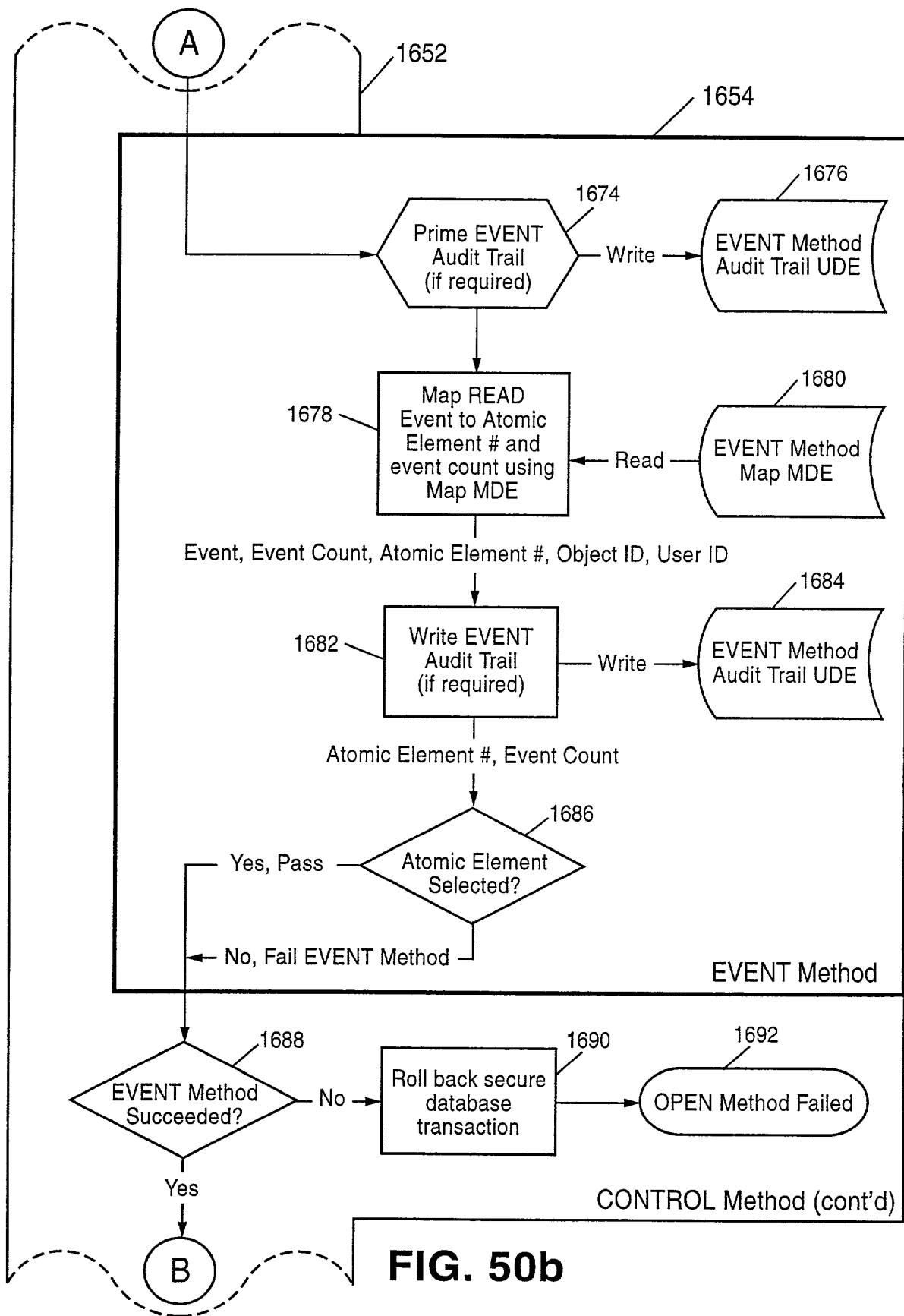


FIG. 50b

FIG. 50c

0949.07301

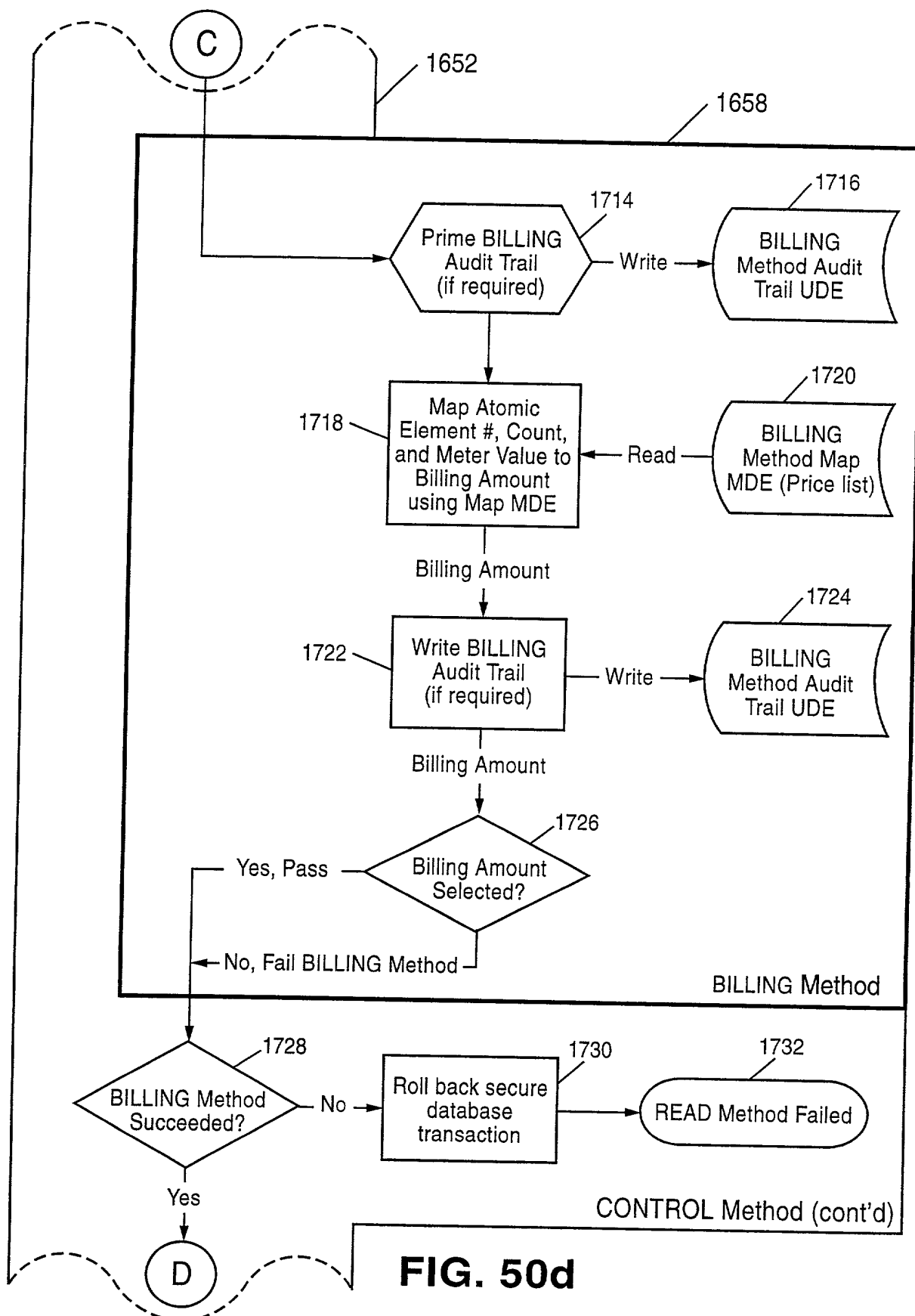


FIG. 50d

FIG. 50e

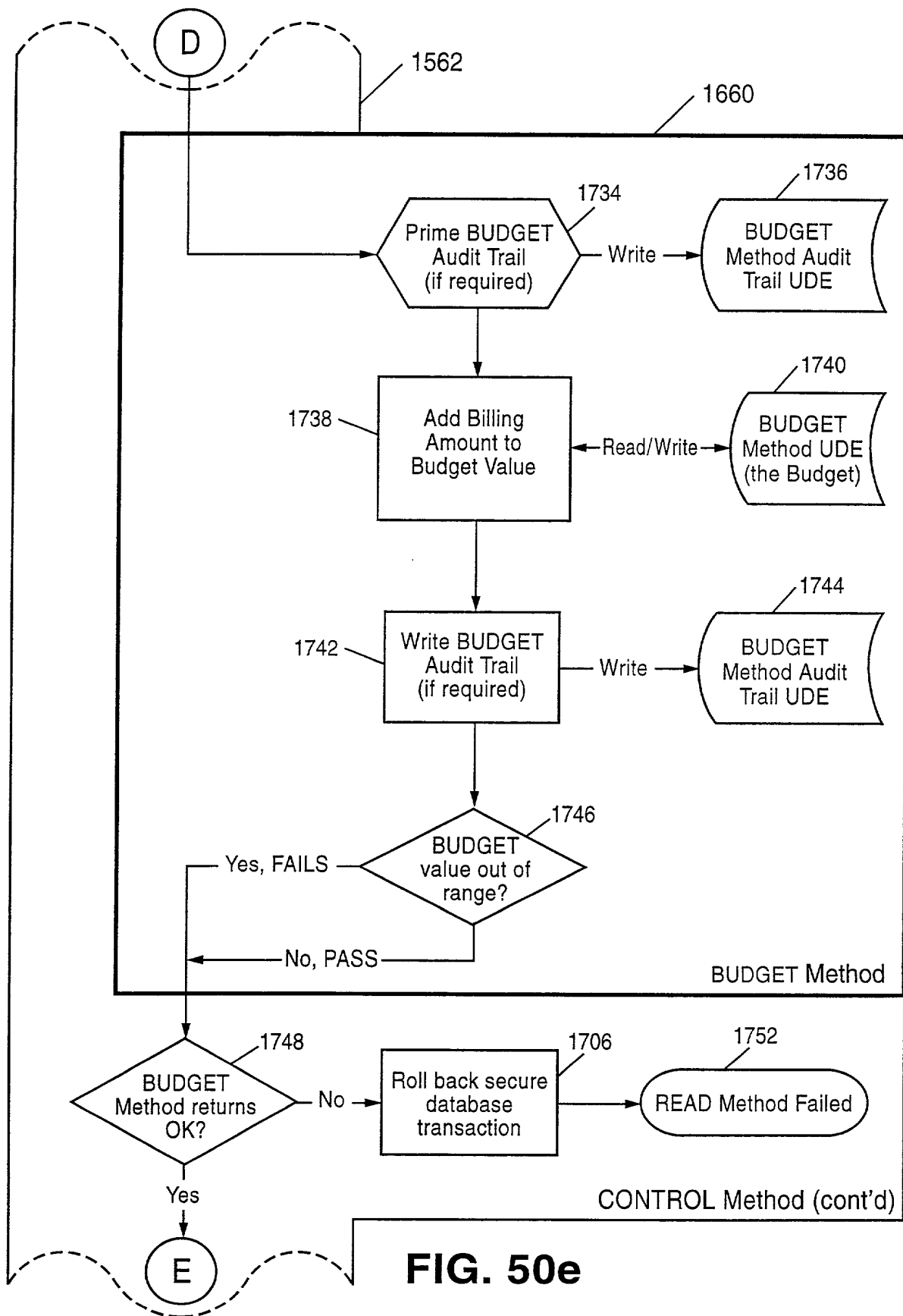
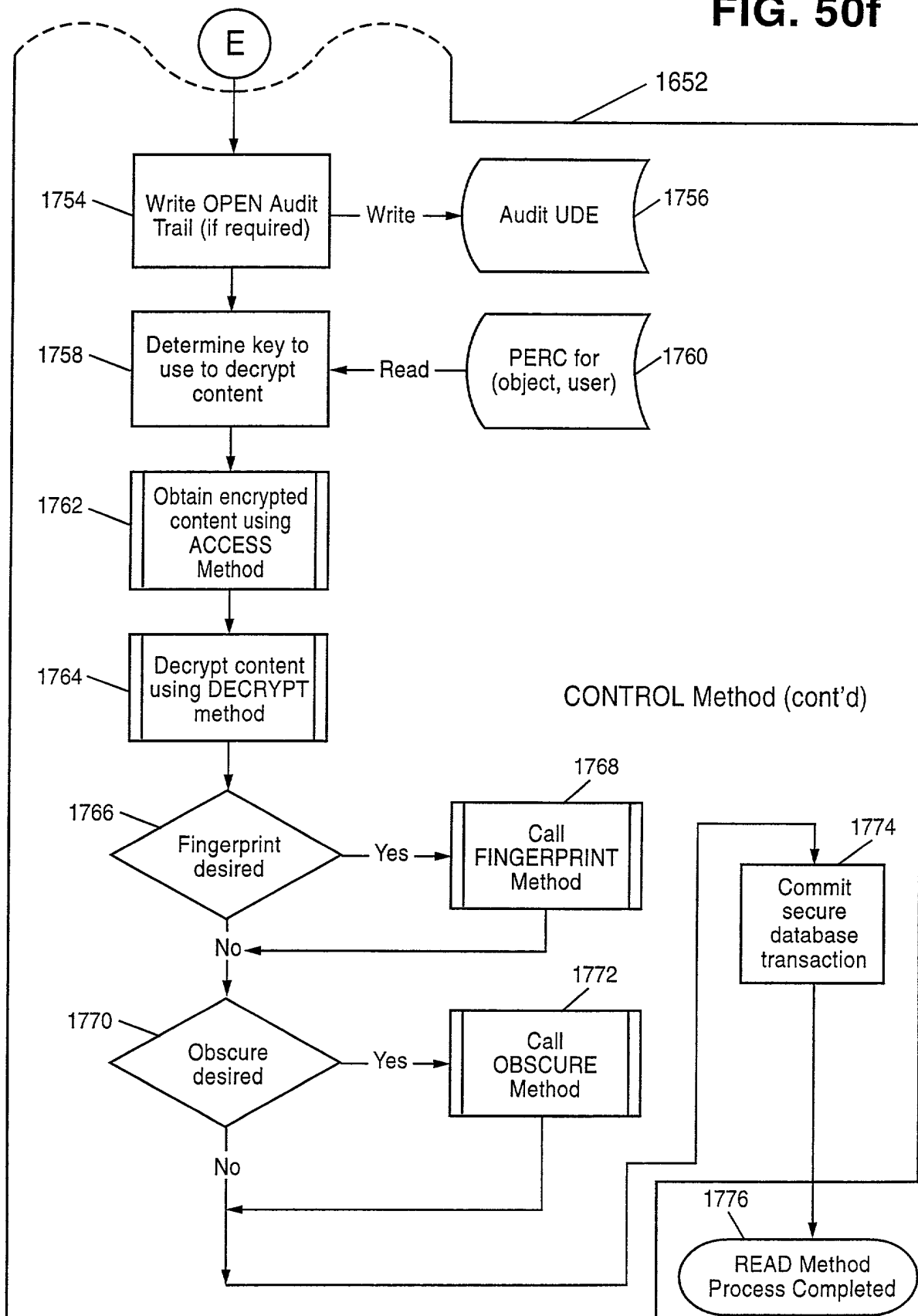


FIG. 50e

FIG. 50f



2025-07-20 07:20:00

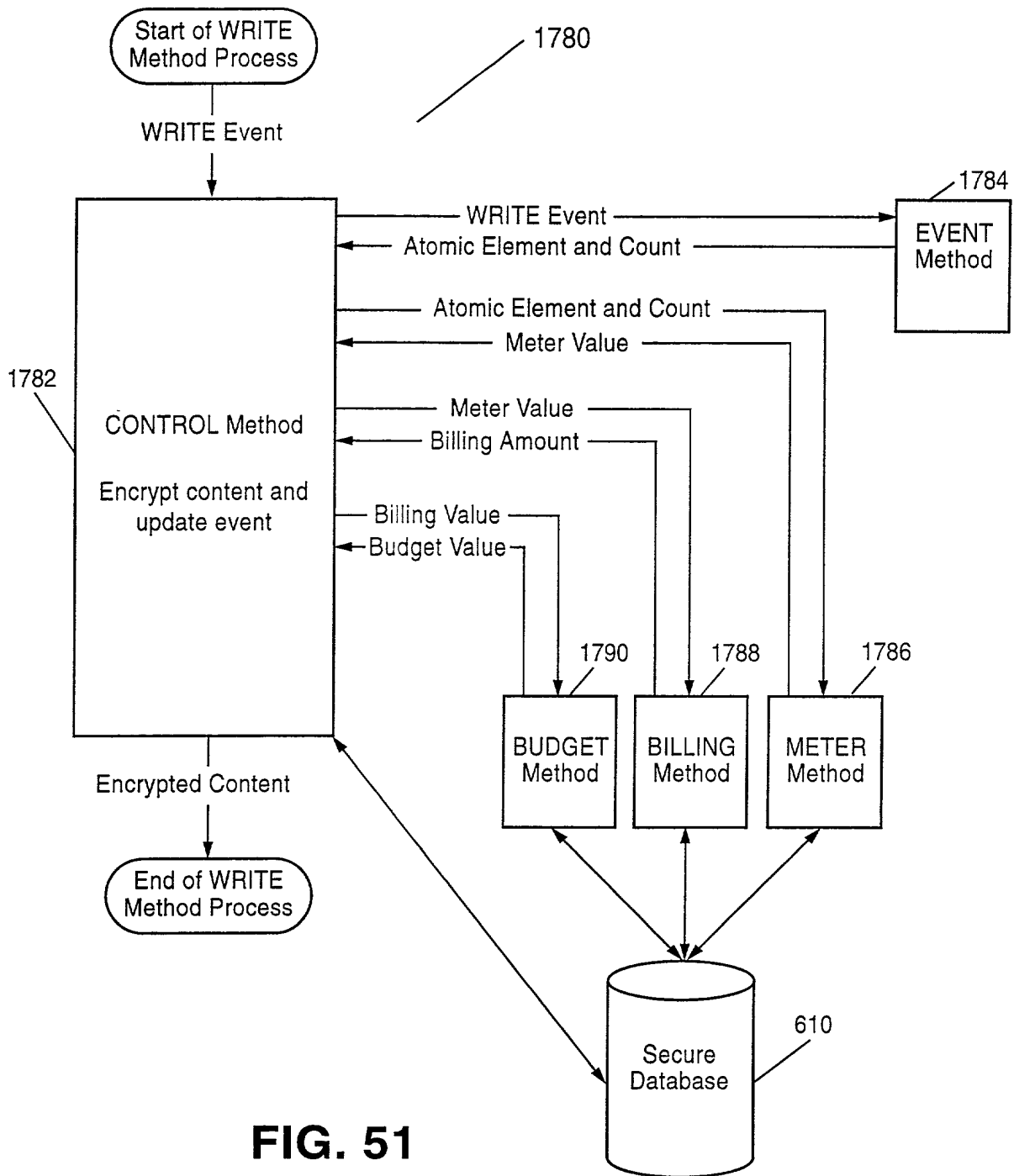
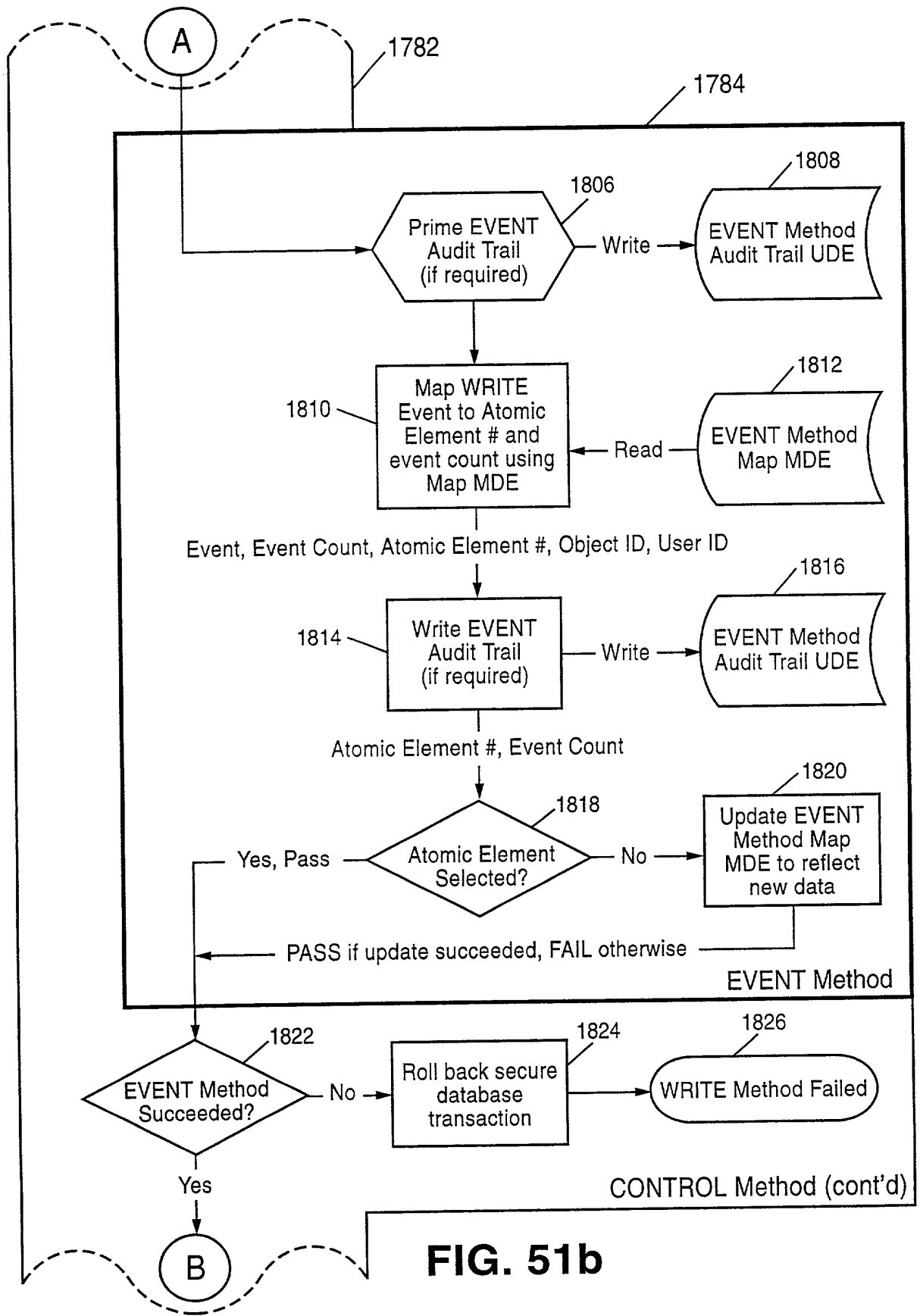
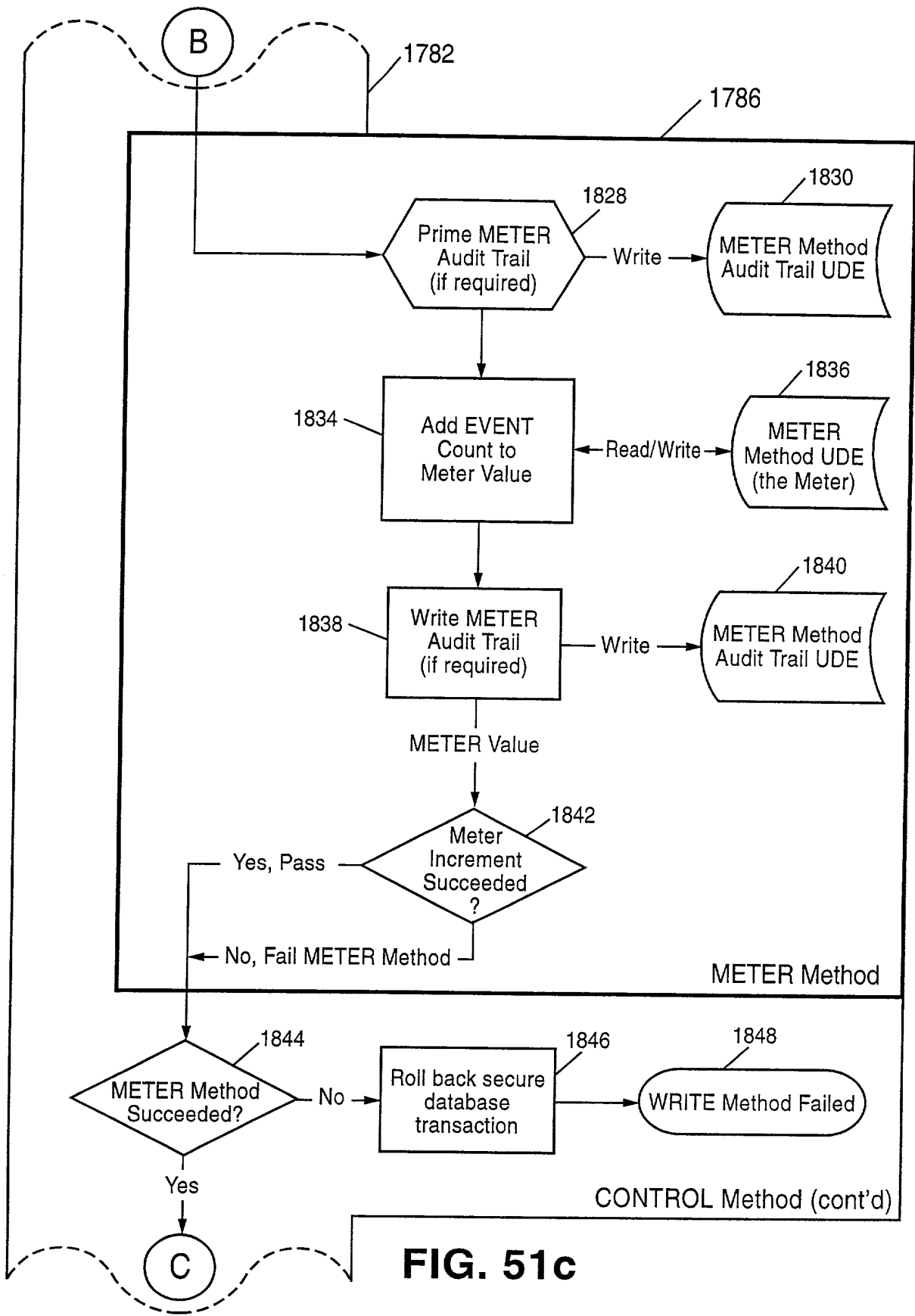


FIG. 51a





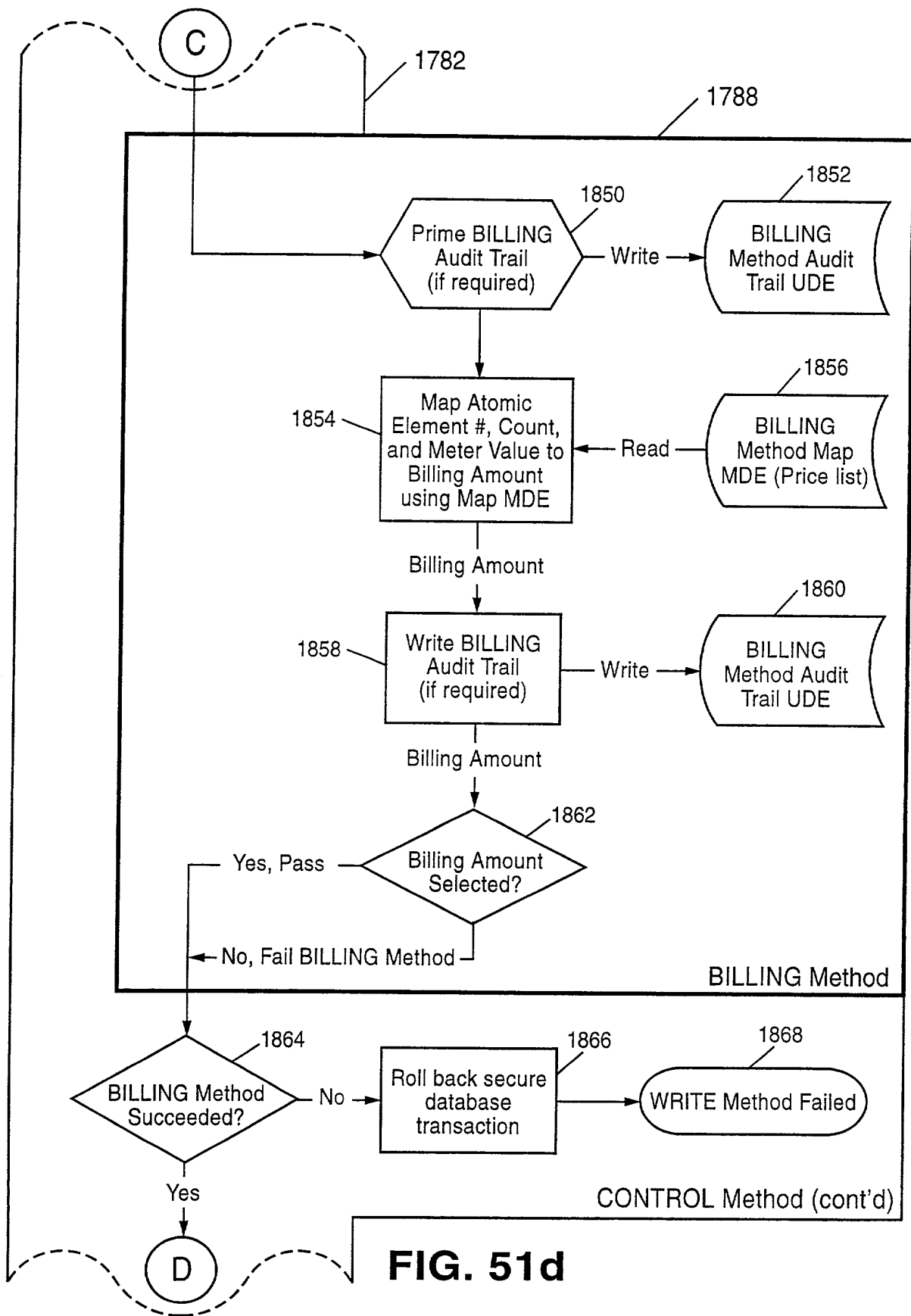


FIG. 51d

FIG. 51e


```

graph TD
    E((E)) -- 1782 --> 1890[1890 Write WRITE Audit Trail (if required)]
    1890 -- Write --> 1892[(1892 Audit UDE)]
    1890 --> 1894[1894 Determine key to use to encrypt content]
    1894 -- Read --> 1896[(1896 PERC for (object, user))]
    1894 --> 1898[1898 Encrypt content using ENCRYPT method]
    1898 --> 1900[1900 Write content to object using ACCESS method]
    1900 --> 1902[1902 Update container TOC and related information]
    1902 --> 1904[1904 Commit secure database transaction]
    1904 --> 1906([1906 WRITE Method Process Completed])
  
```

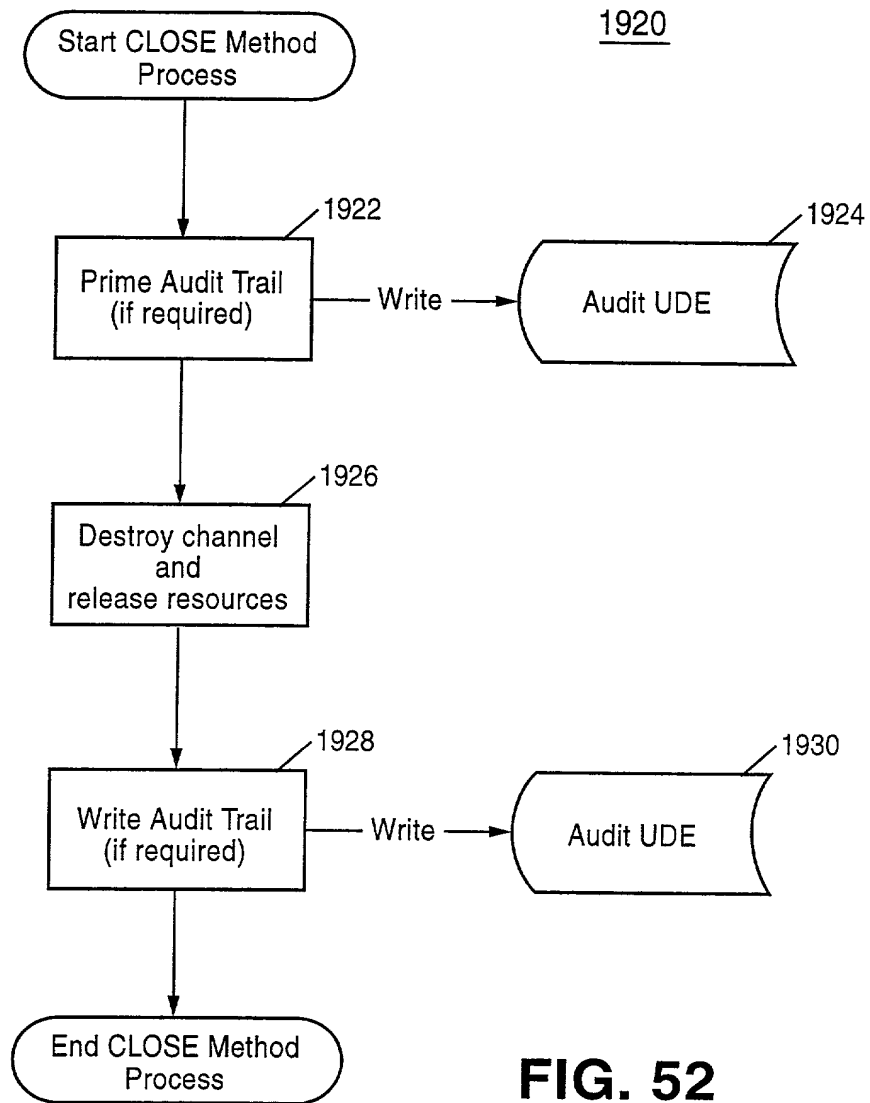
FIG. 51f

```

graph TD
    1906[1906] --> WRITE[WRITE Method Process Completed]
  
```

1906

WRITE Method Process Completed



```

graph TD
    Start([EVENT Method Start]) -- "EVENT, Event Count, Event Parameters" --> 1942{{Prime EVENT Audit Trail (if required)}}
    1942 -- Write --> 1944[(EVENT Method Audit Trail UDE)]
    1942 --> 1946[Load MAP MDE DTD]
    1948[(EVENT Method Map DTD)] -- Read --> 1946
    1946 --> 1950[Map Event to Atomic Element # and event count using Map MDE]
    1952[(EVENT Method Map MDE)] -- Read --> 1950
    1950 -- "Event, Event Count, Atomic Element #, Object ID, User ID" --> 1970[Write EVENT Audit Trail (if required)]
    1970 -- Write --> 1972[(EVENT Method Audit Trail UDE)]
    1970 -- "Atomic Element #, Event Count" --> 1974{Atomic Element Selected?}
    1974 -- No --> 1976([EVENT Method failed])
    1974 --> 1978([EVENT Method Succeeded])

```

FIG. 53a

FIG. 53a

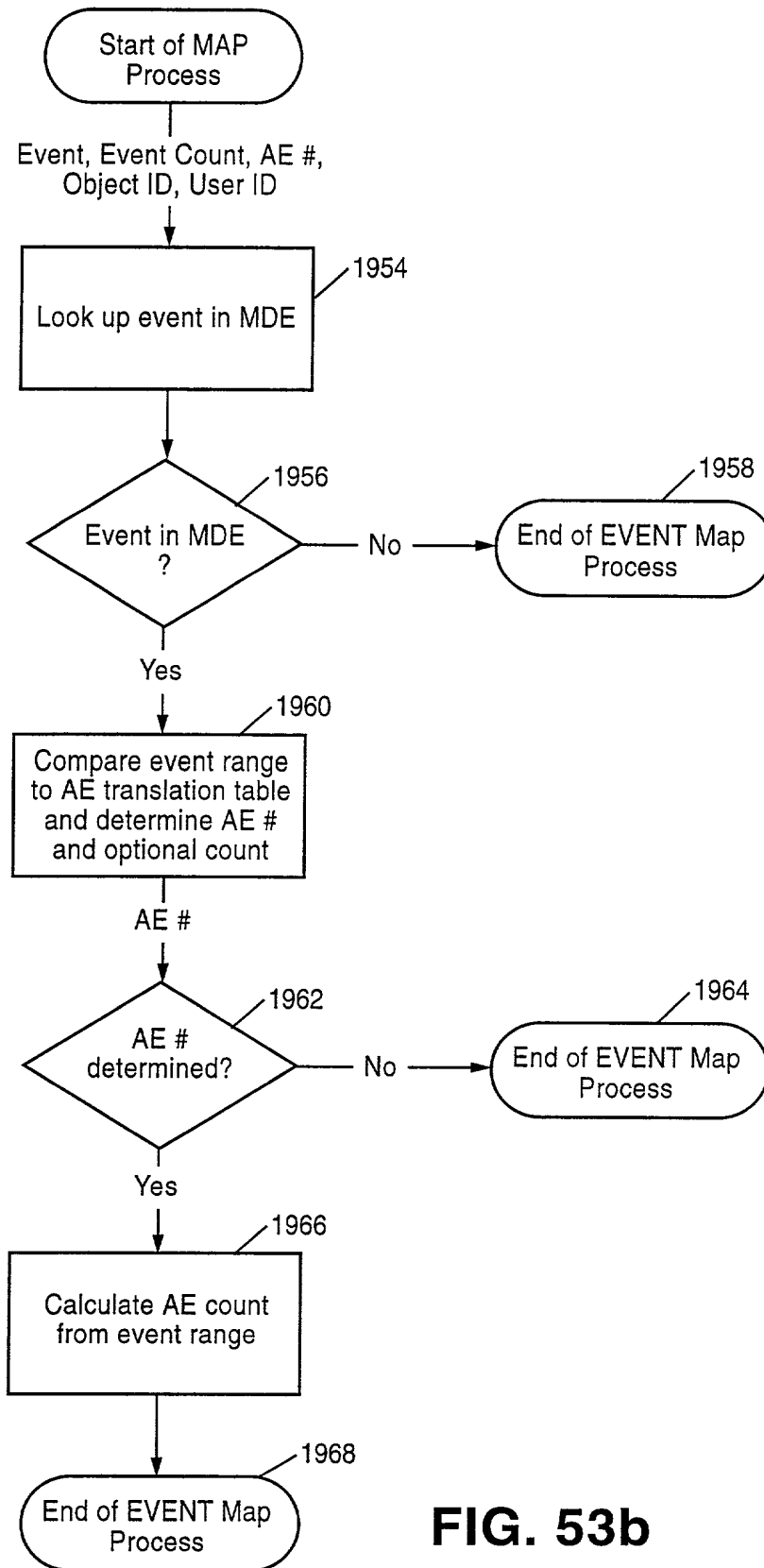


FIG. 53b

FIG. 53c

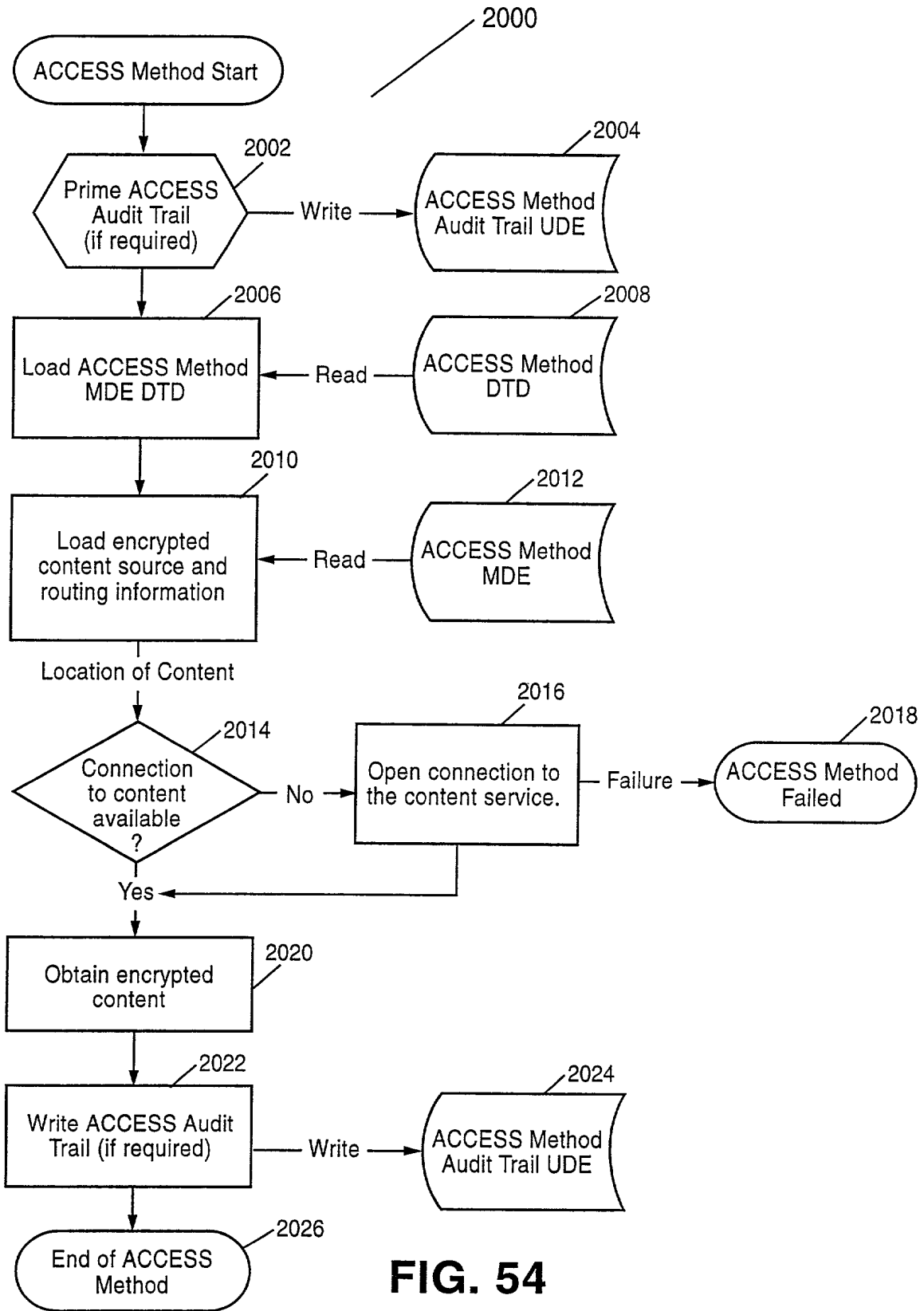


FIG. 54

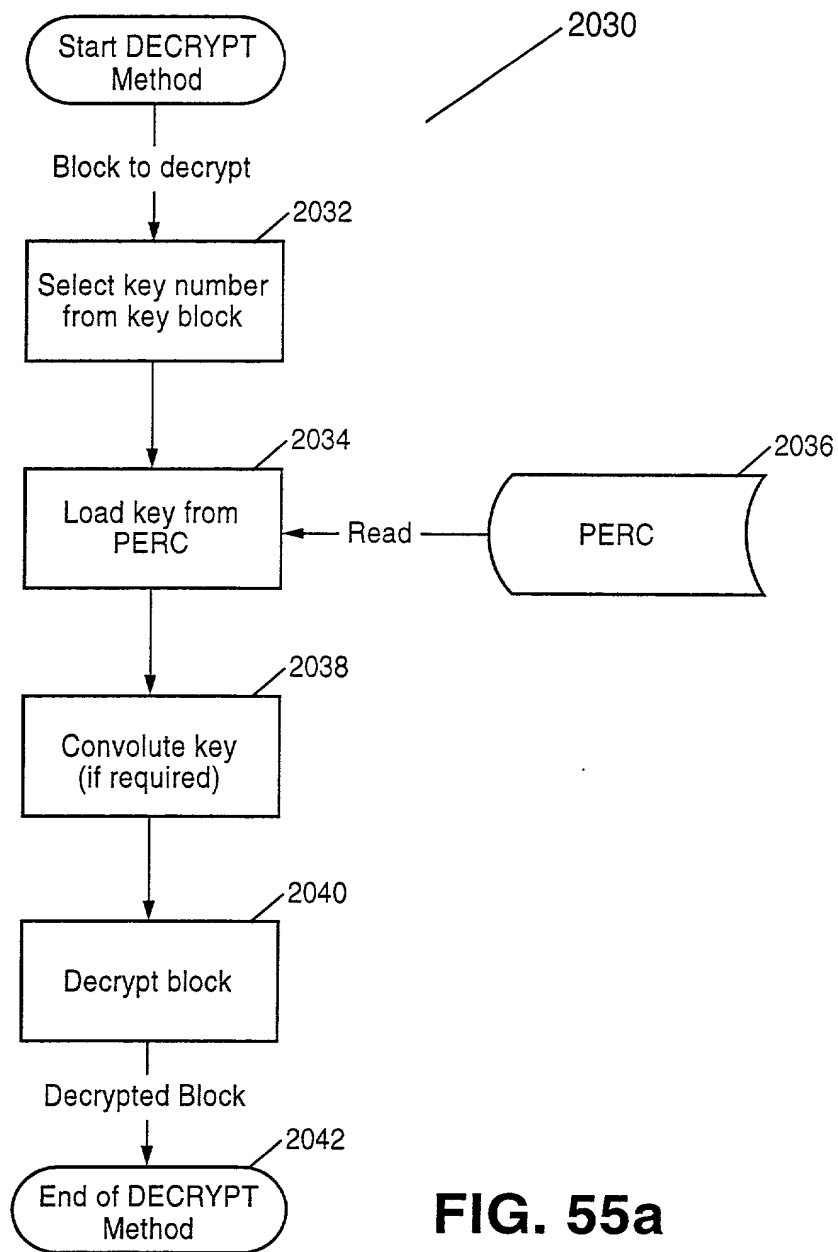


FIG. 55a

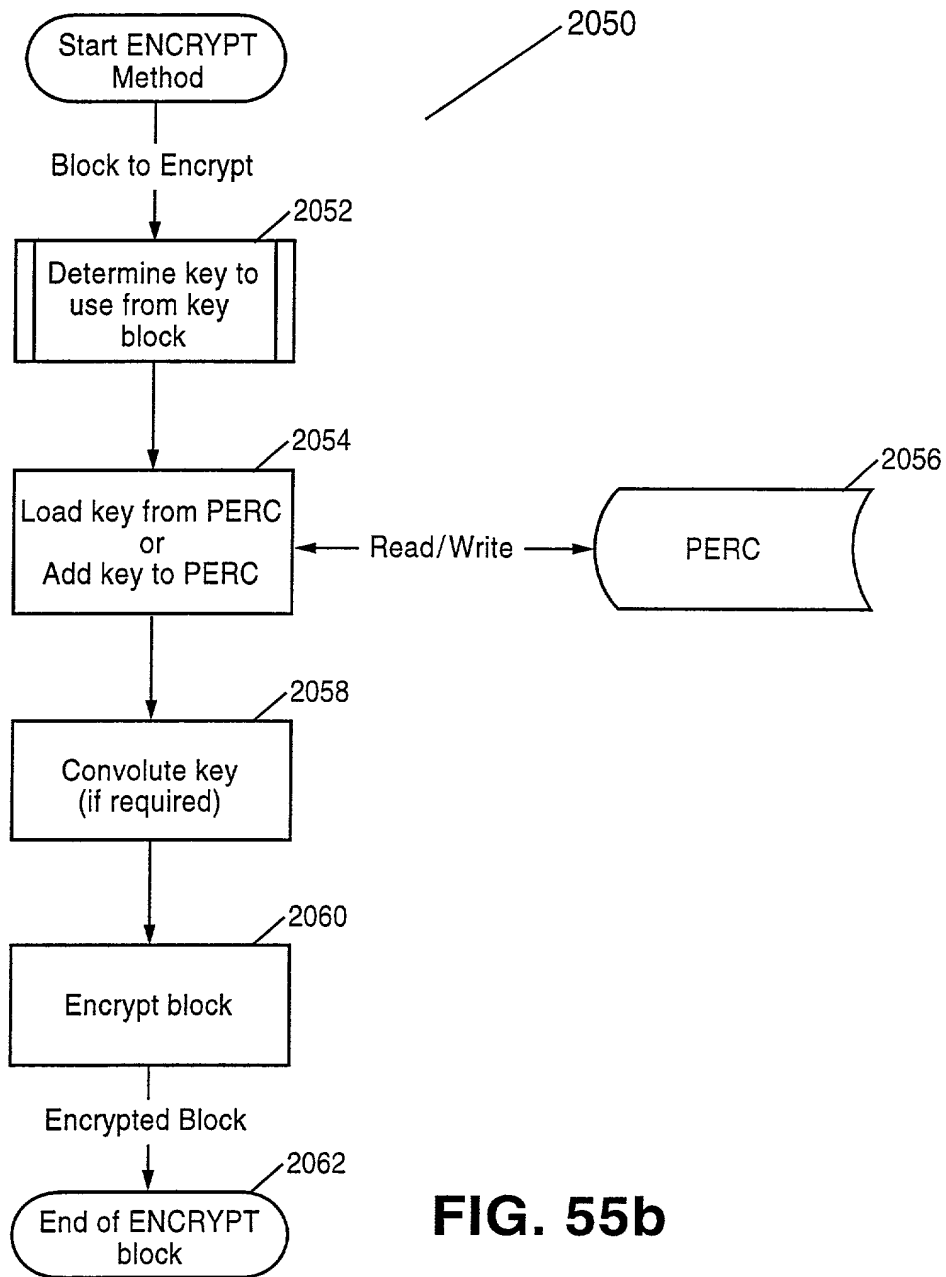


FIG. 55b

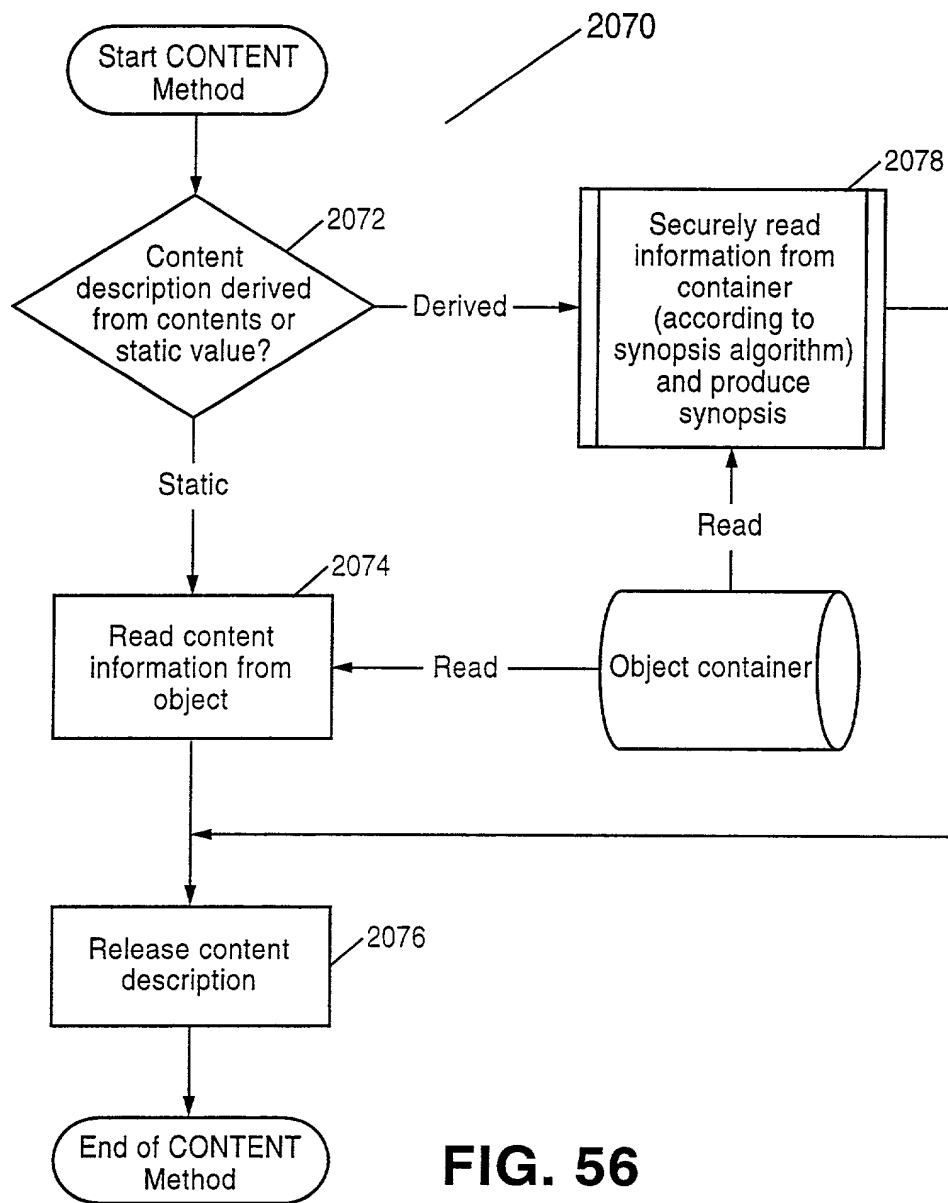


FIG. 56

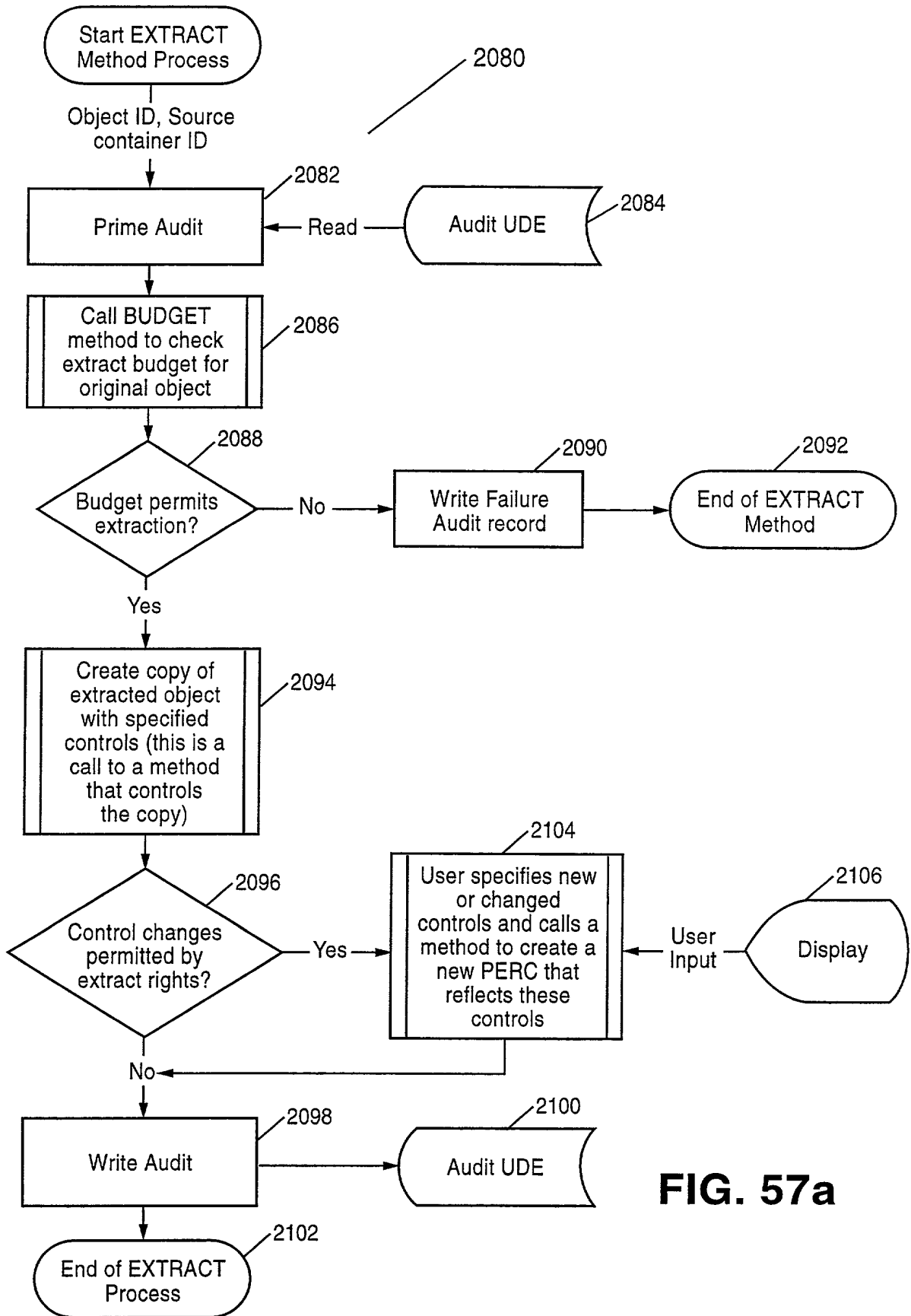


FIG. 57a

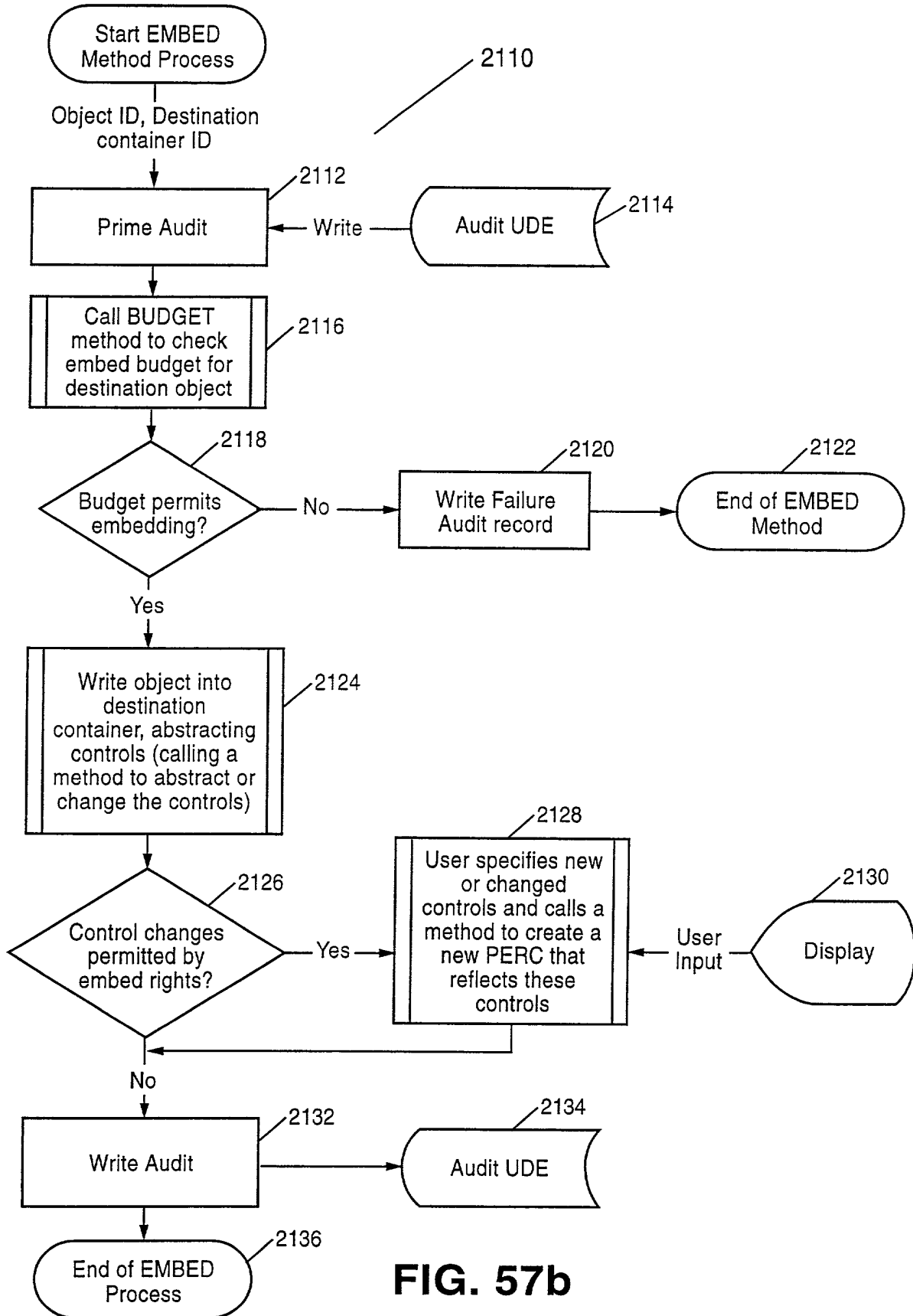


FIG. 57b

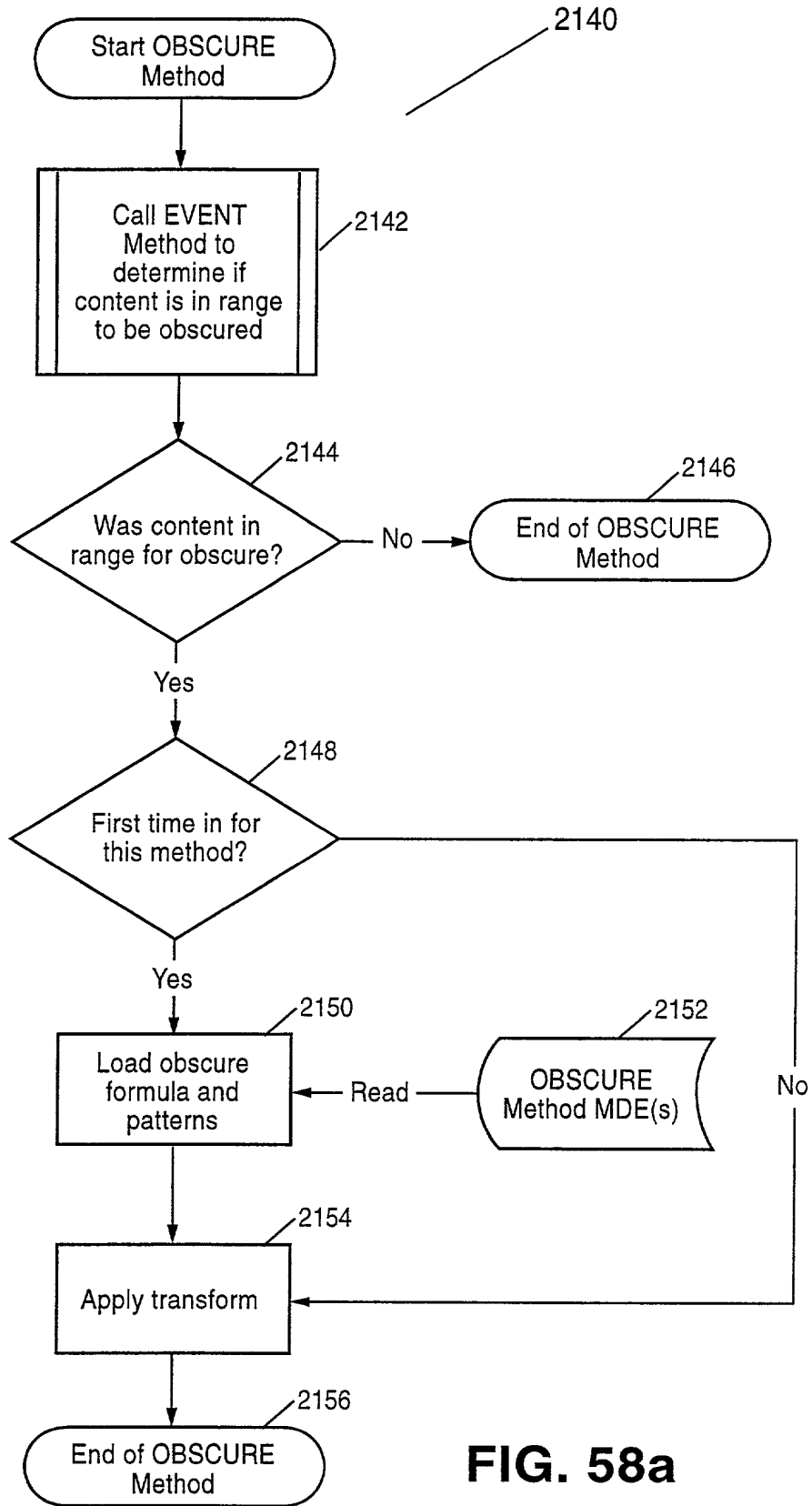


FIG. 58a

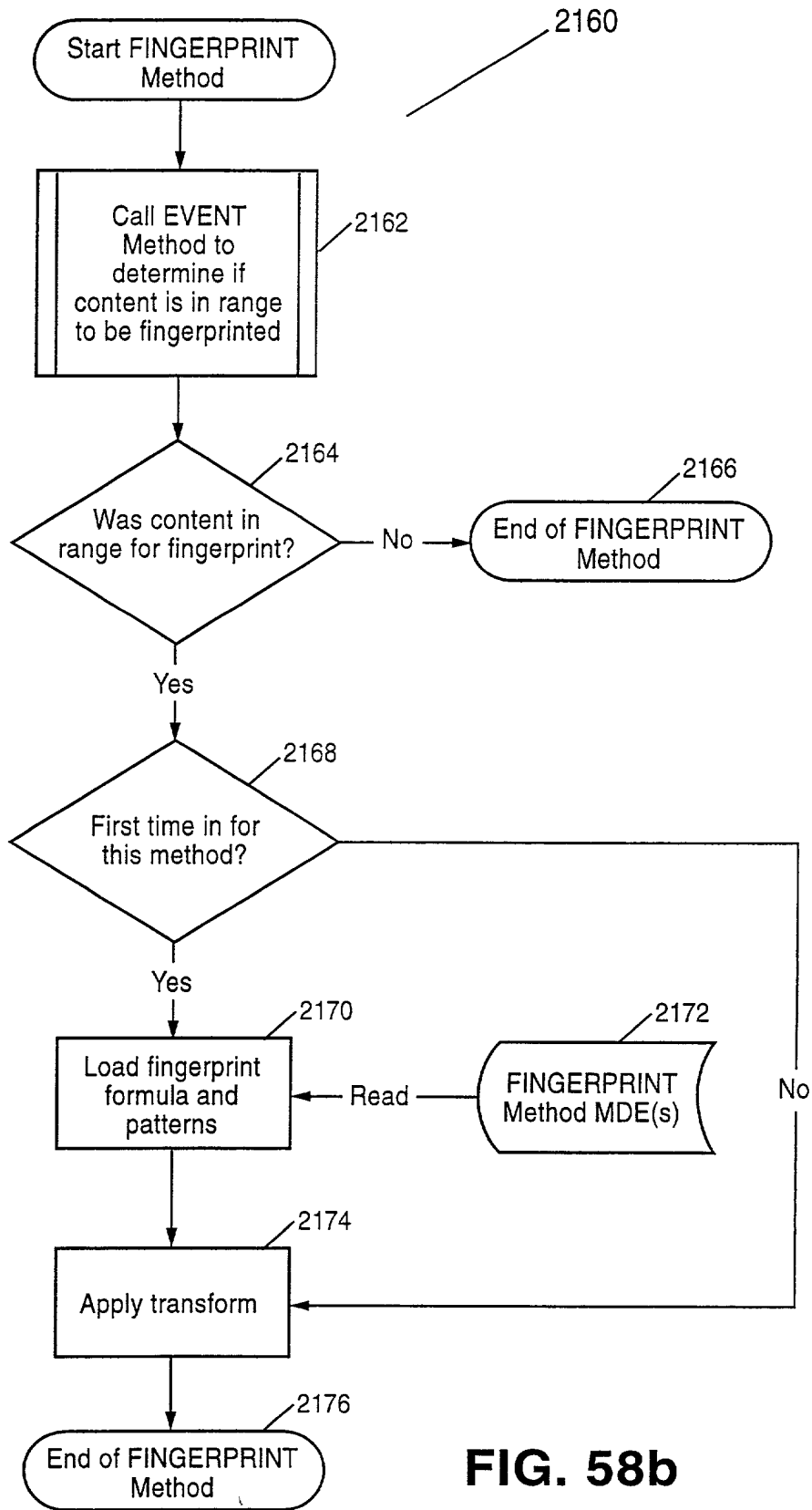


FIG. 58b

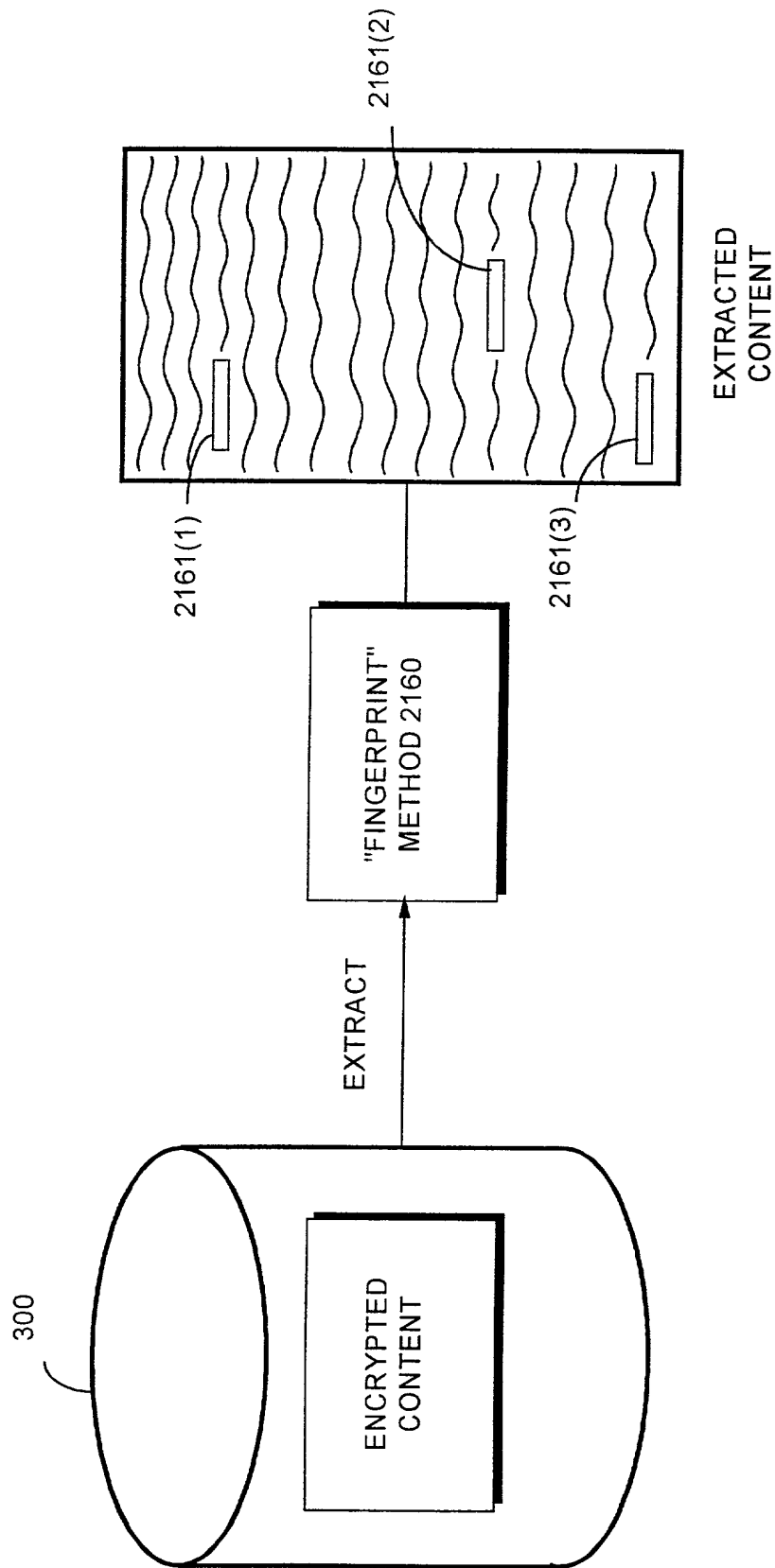


FIG. 58C

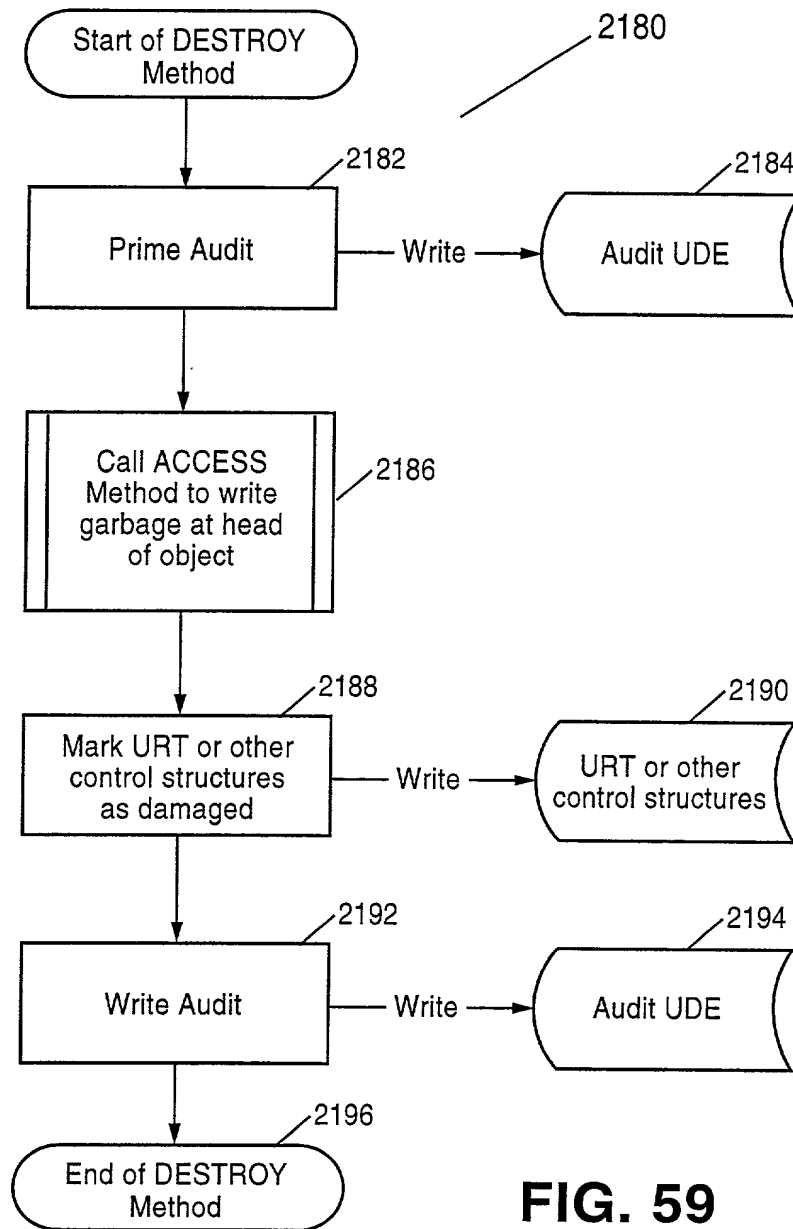


FIG. 59

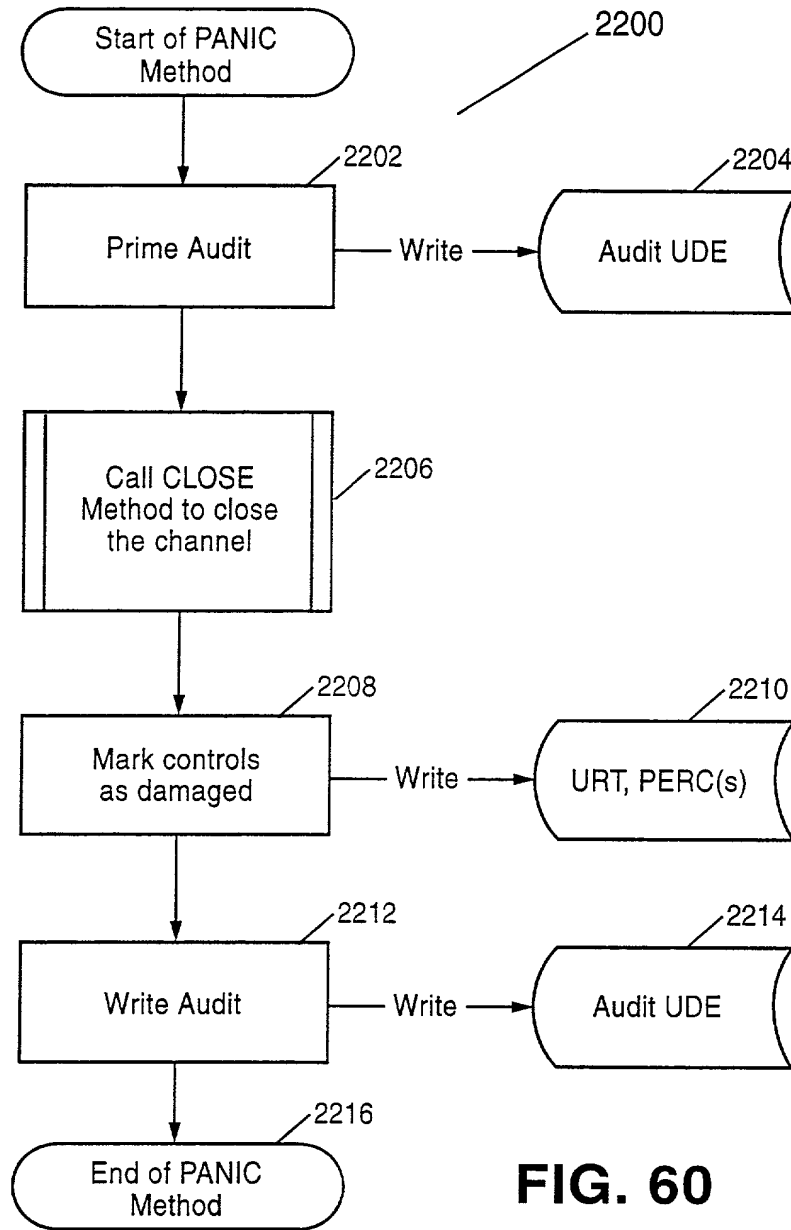


FIG. 60

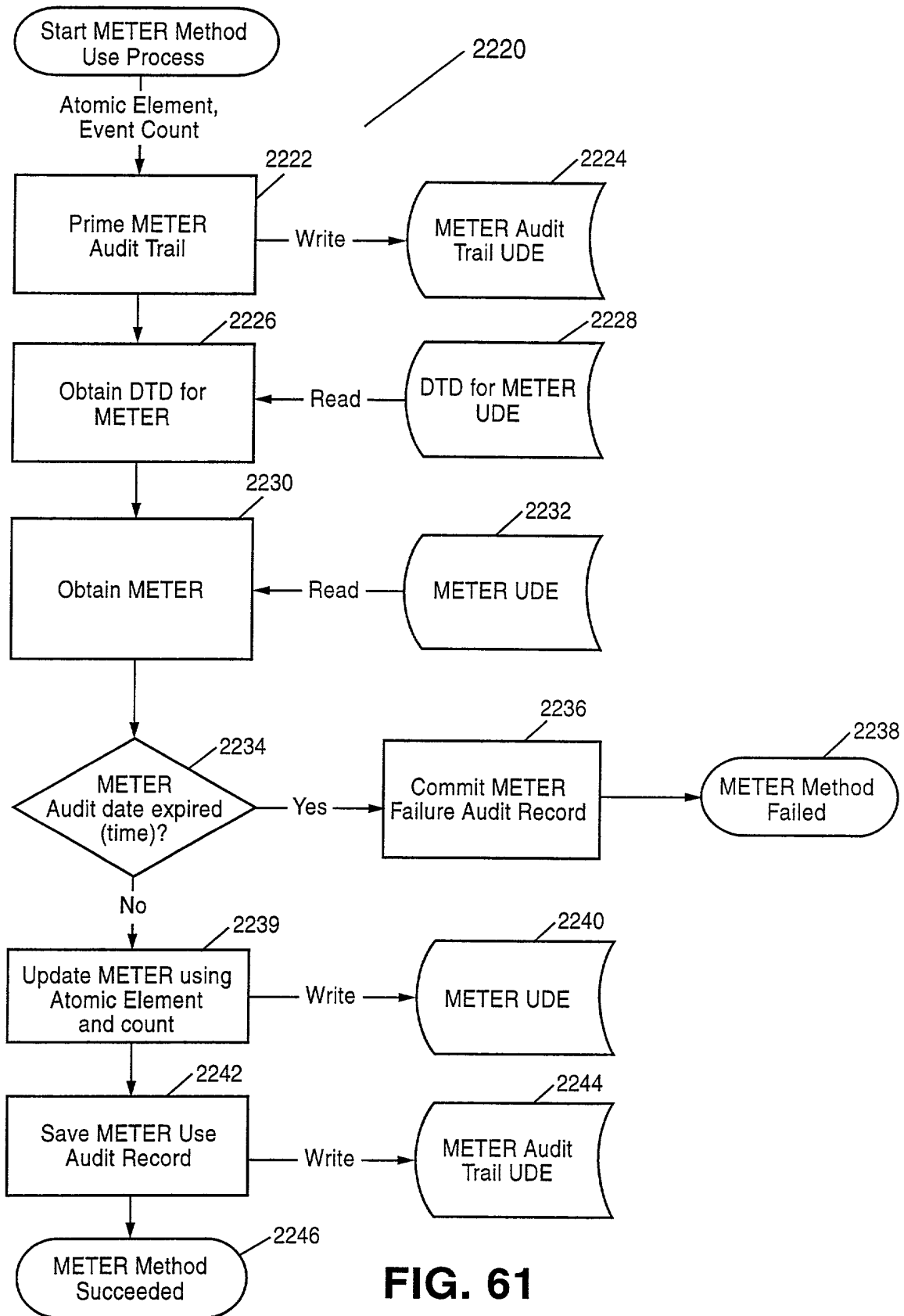
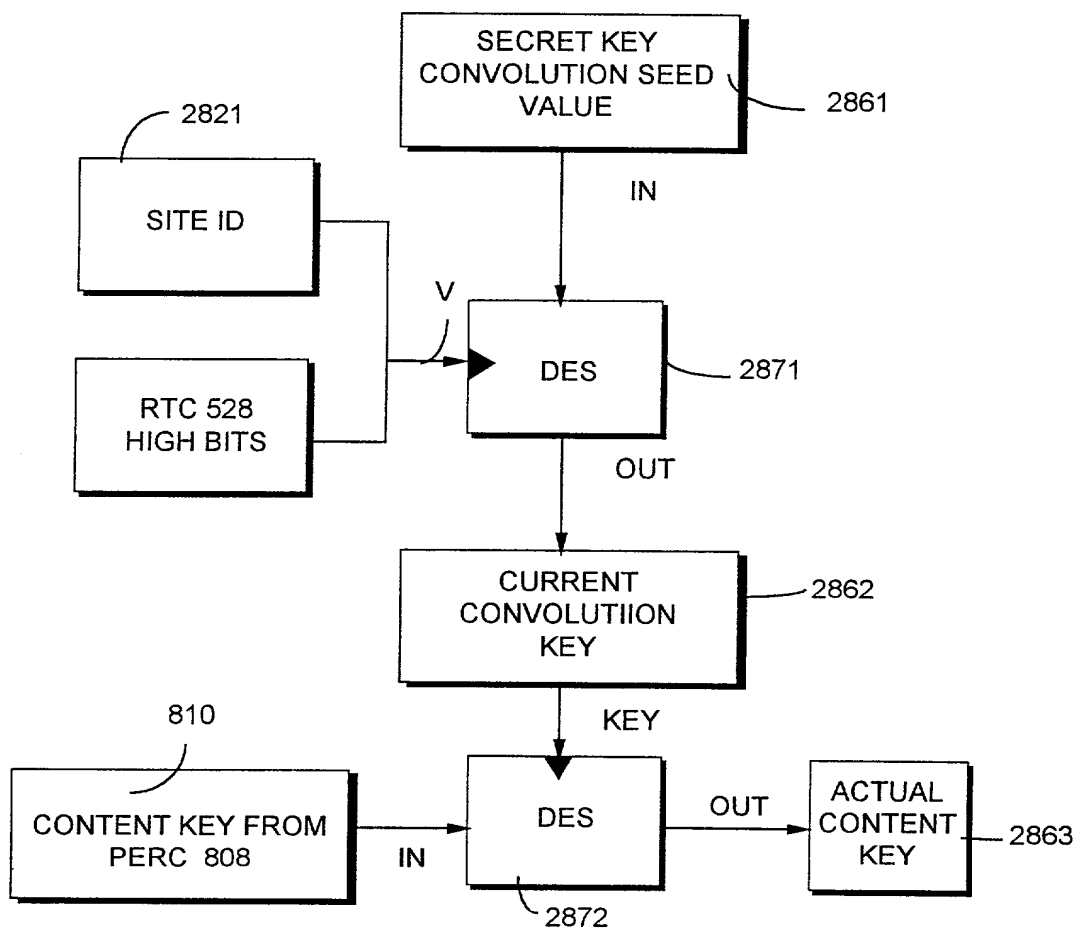


FIG. 61

FIG. 62



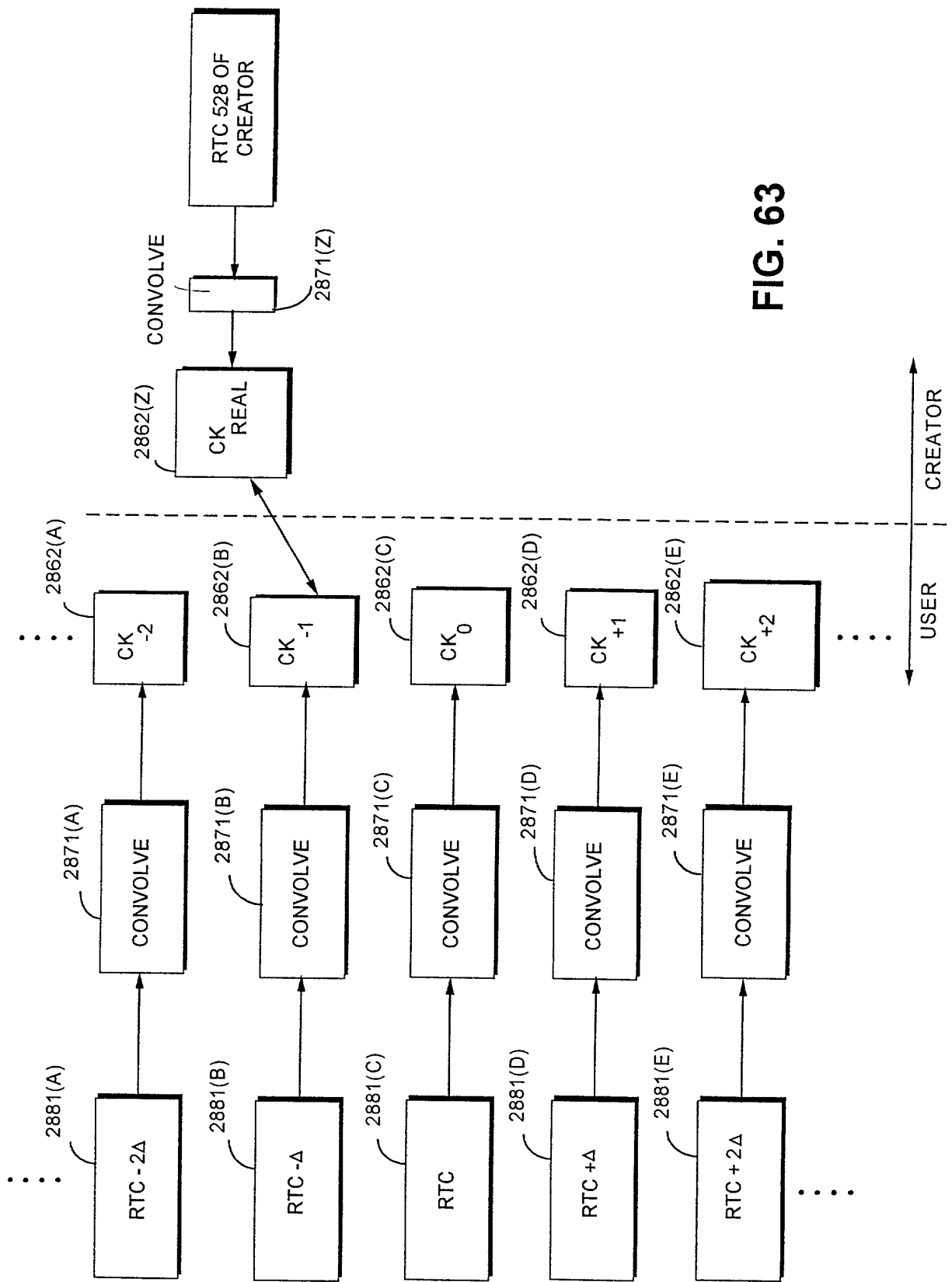


FIG. 63

0749370.07220"02E49650

FIG. 64

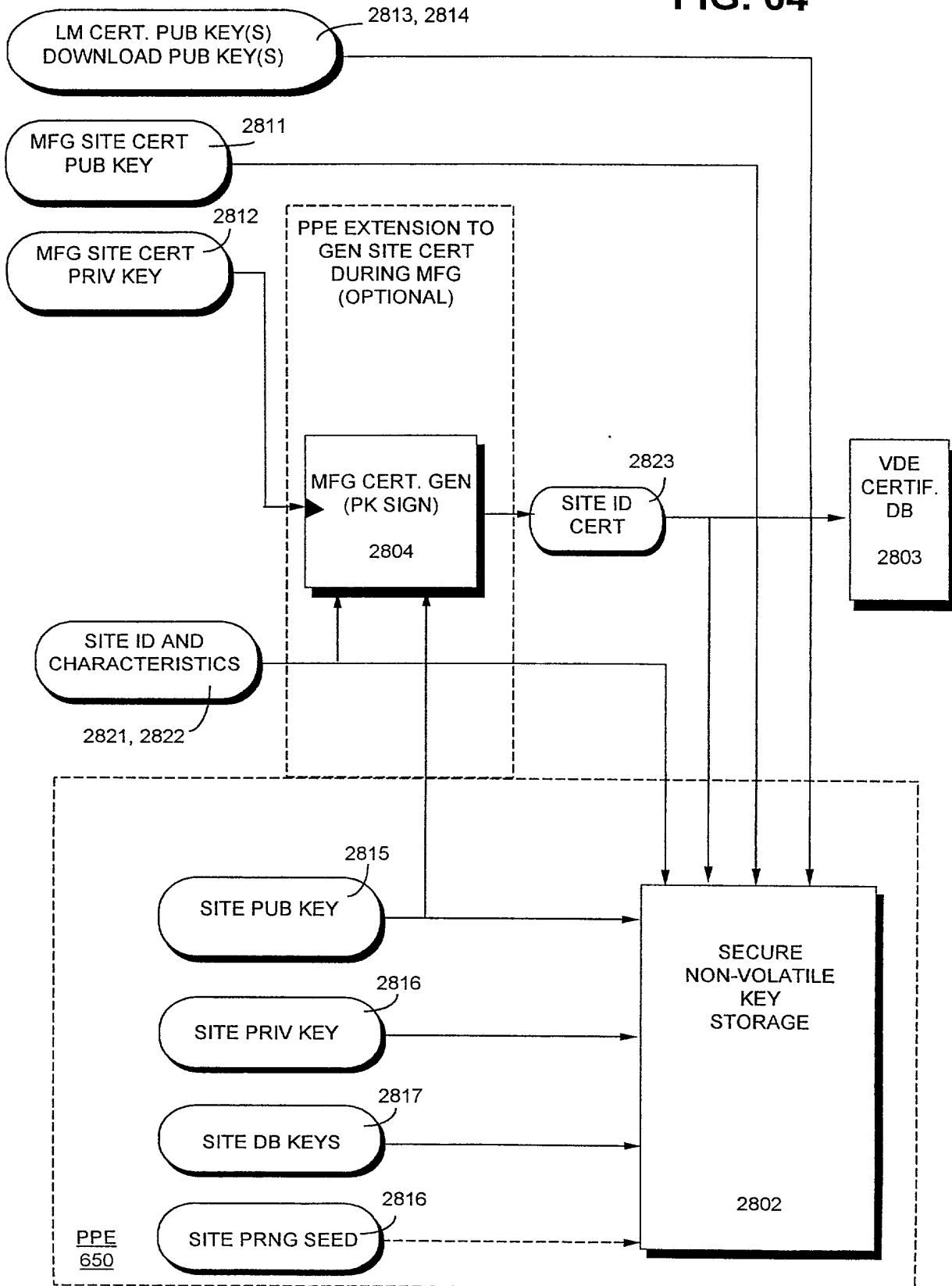


FIG. 65

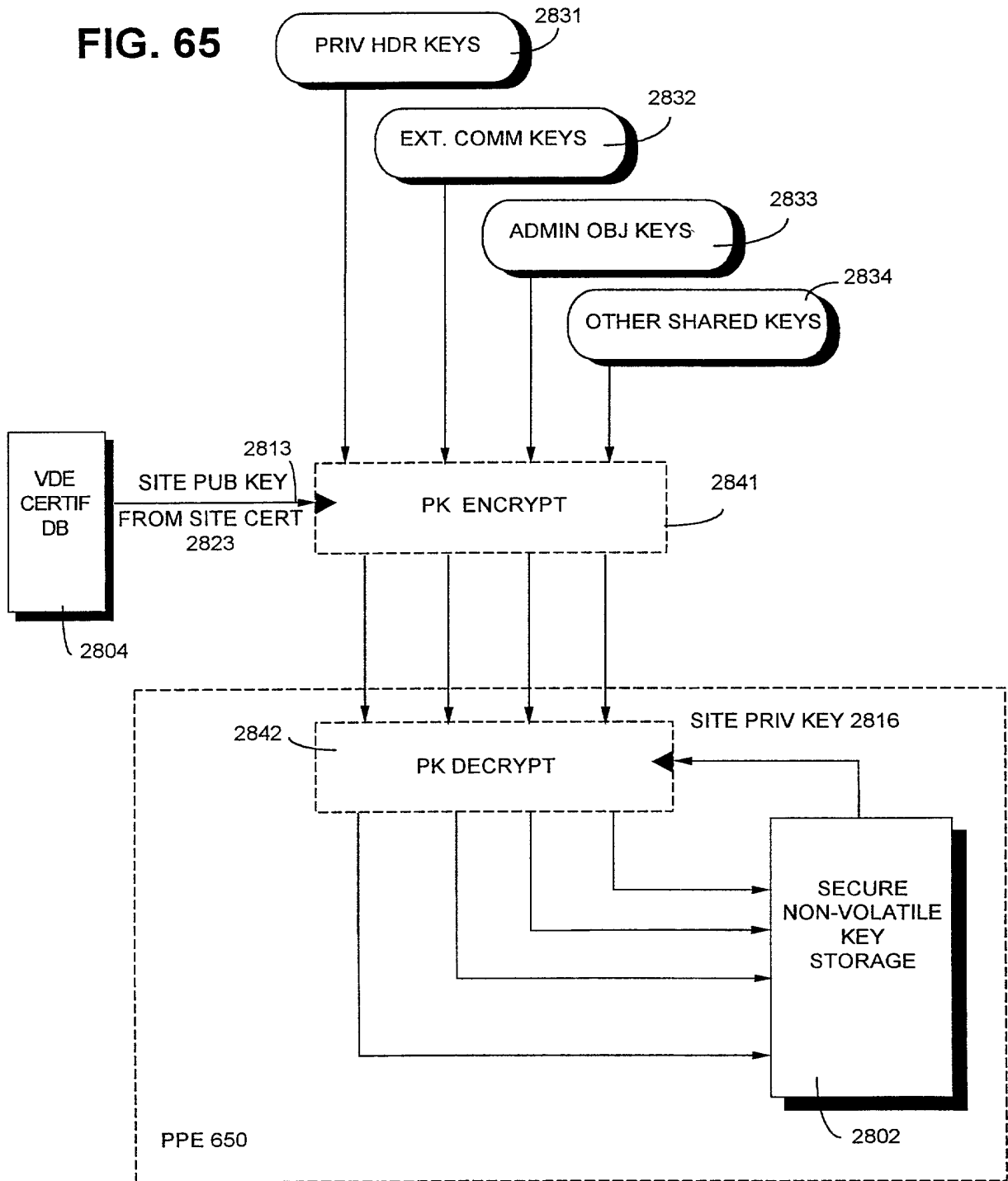
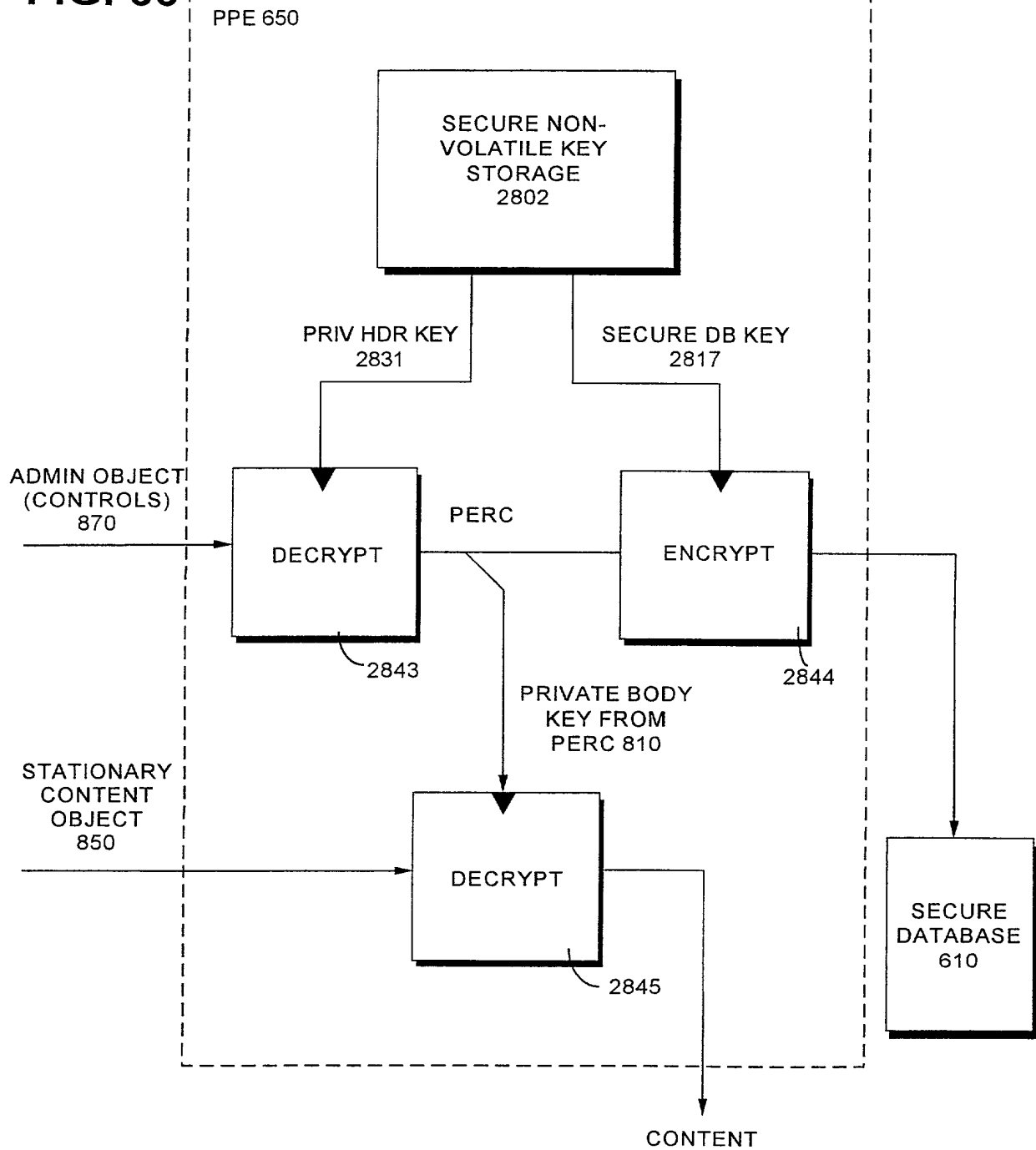


FIG. 66



```

graph TD
    PPE650[PPE 650]
    subgraph PPE650
        NV[SECURE NV KEY STORAGE 2802]
        D1[DECRYPT 2843]
        PERC{PERC 880}
        D2[DECRYPT 2845]
        E[ENCRYPT 2844]
    end
    TO[TRAVELING OBJECT 860] --> D1
    NV -- PRIVATE HEADER KEY 2831 --> D1
    D1 --> PERC
    PERC -- ENCRYPTED CONTENT --> D2
    PERC -- PRIVATE BODY KEY FROM PERC 810 --> D2
    NV -- SECURE FILE/DATABASE KEY 2817 --> E
    E --> SDB[SECURE DB 610]
    D2 --> C[CONTENT]
  
```

FIG. 67

FIG. 68

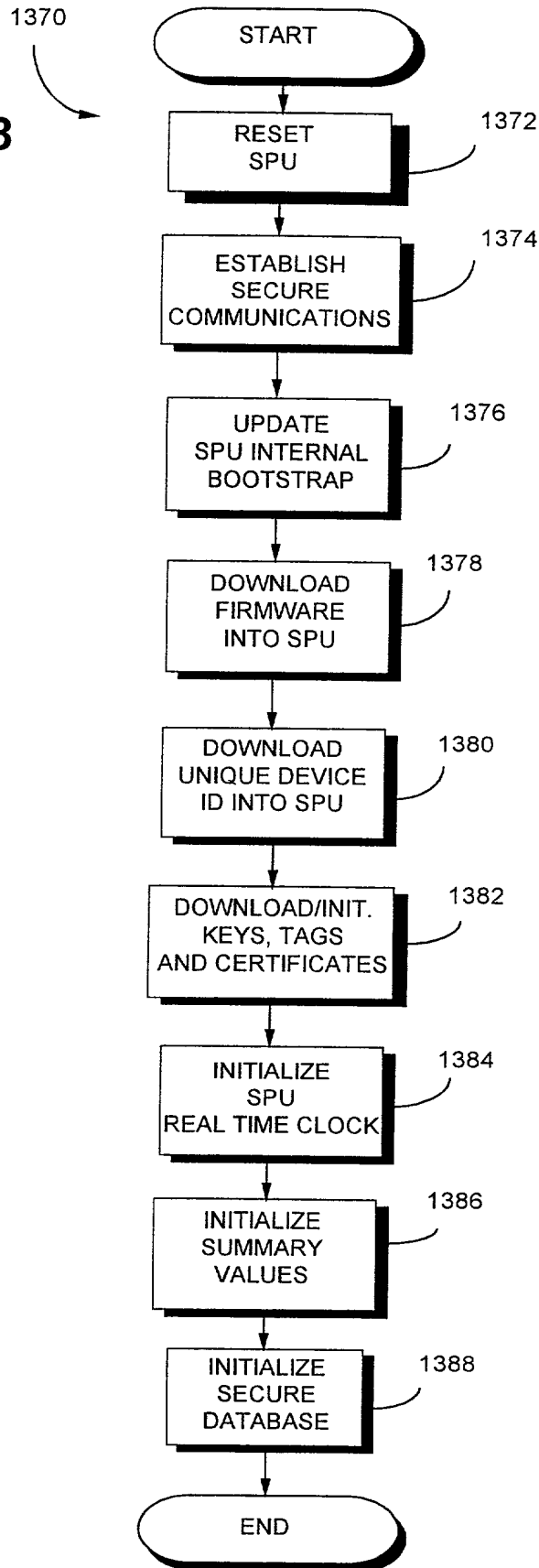
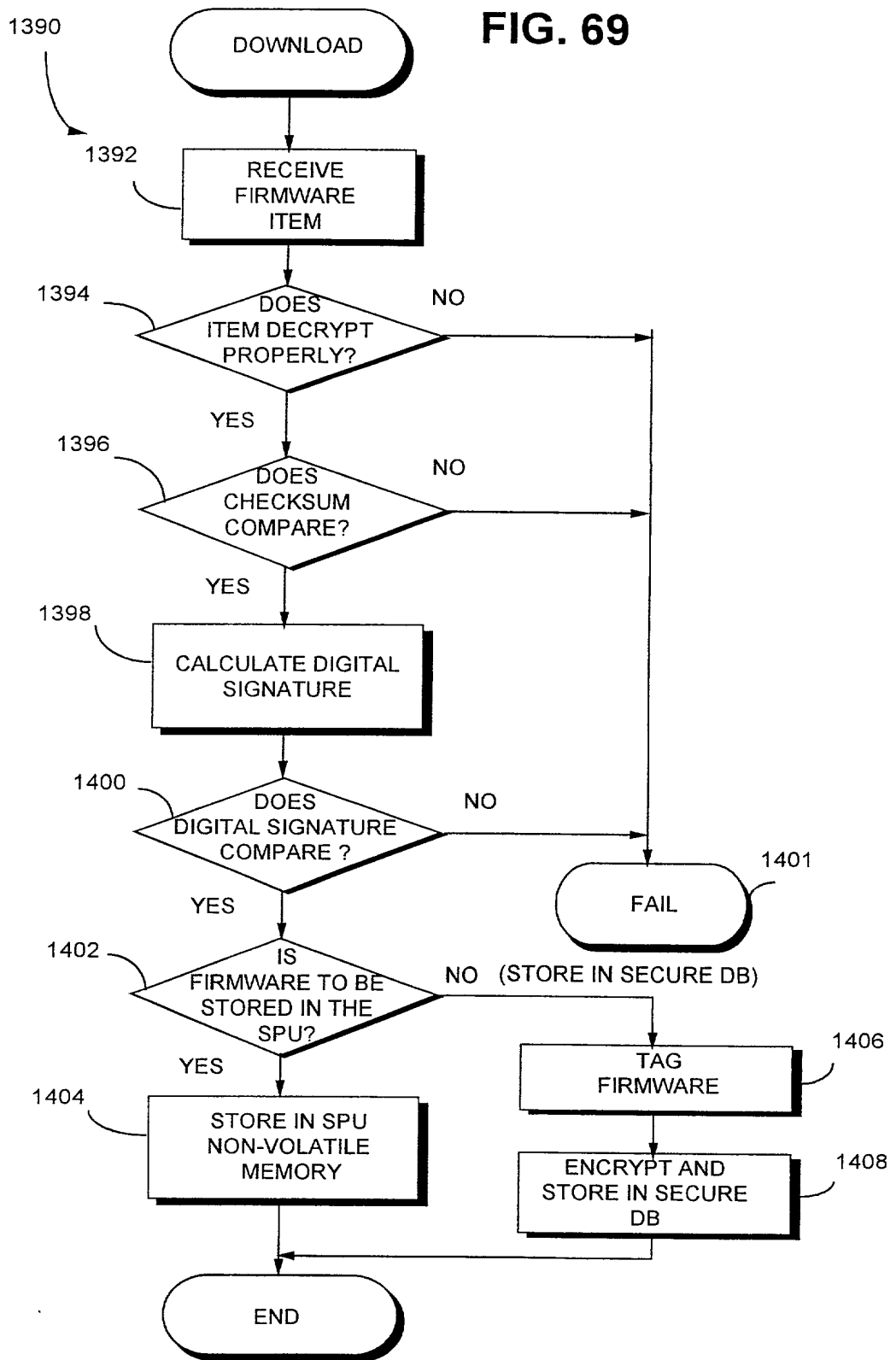


FIG. 69



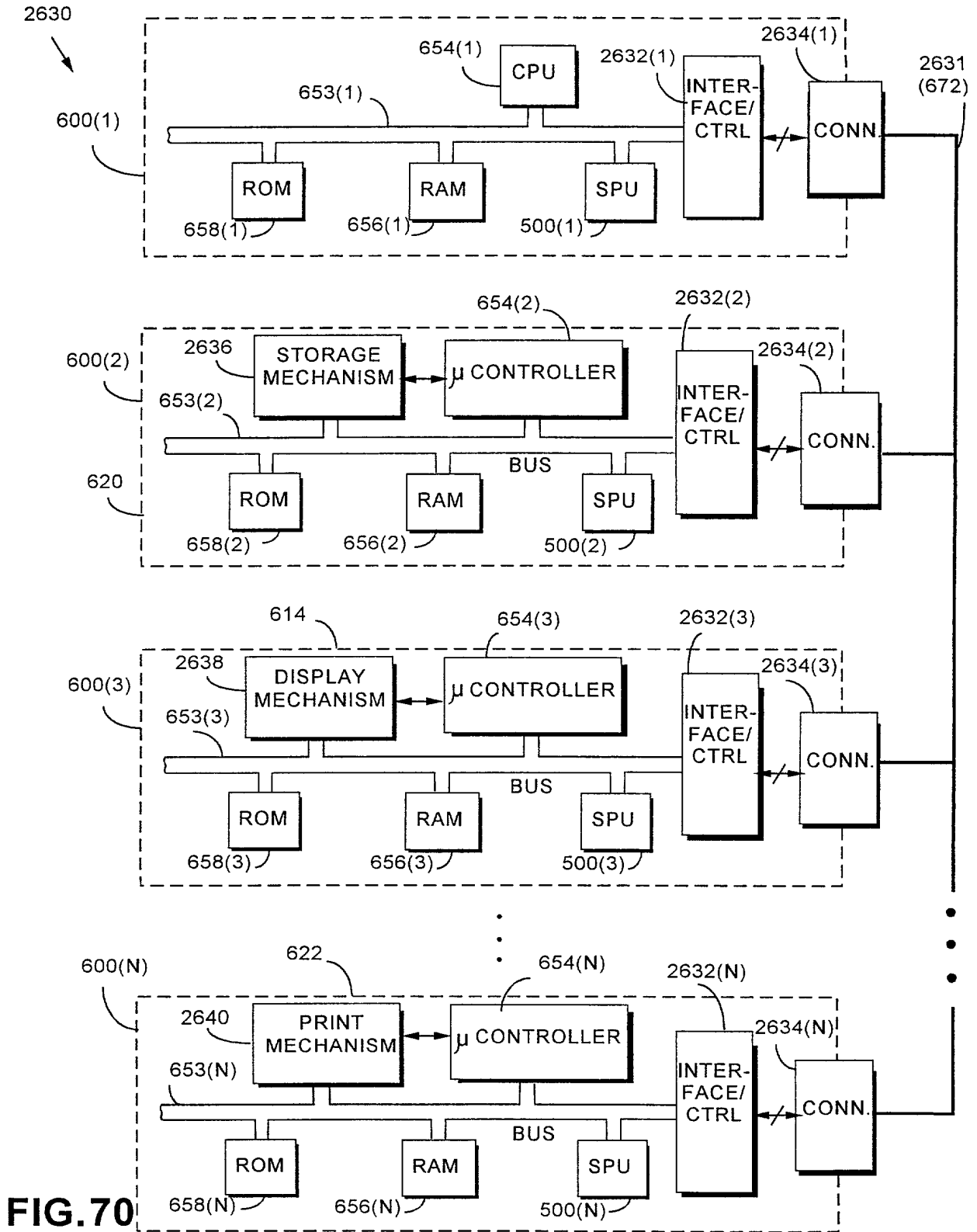
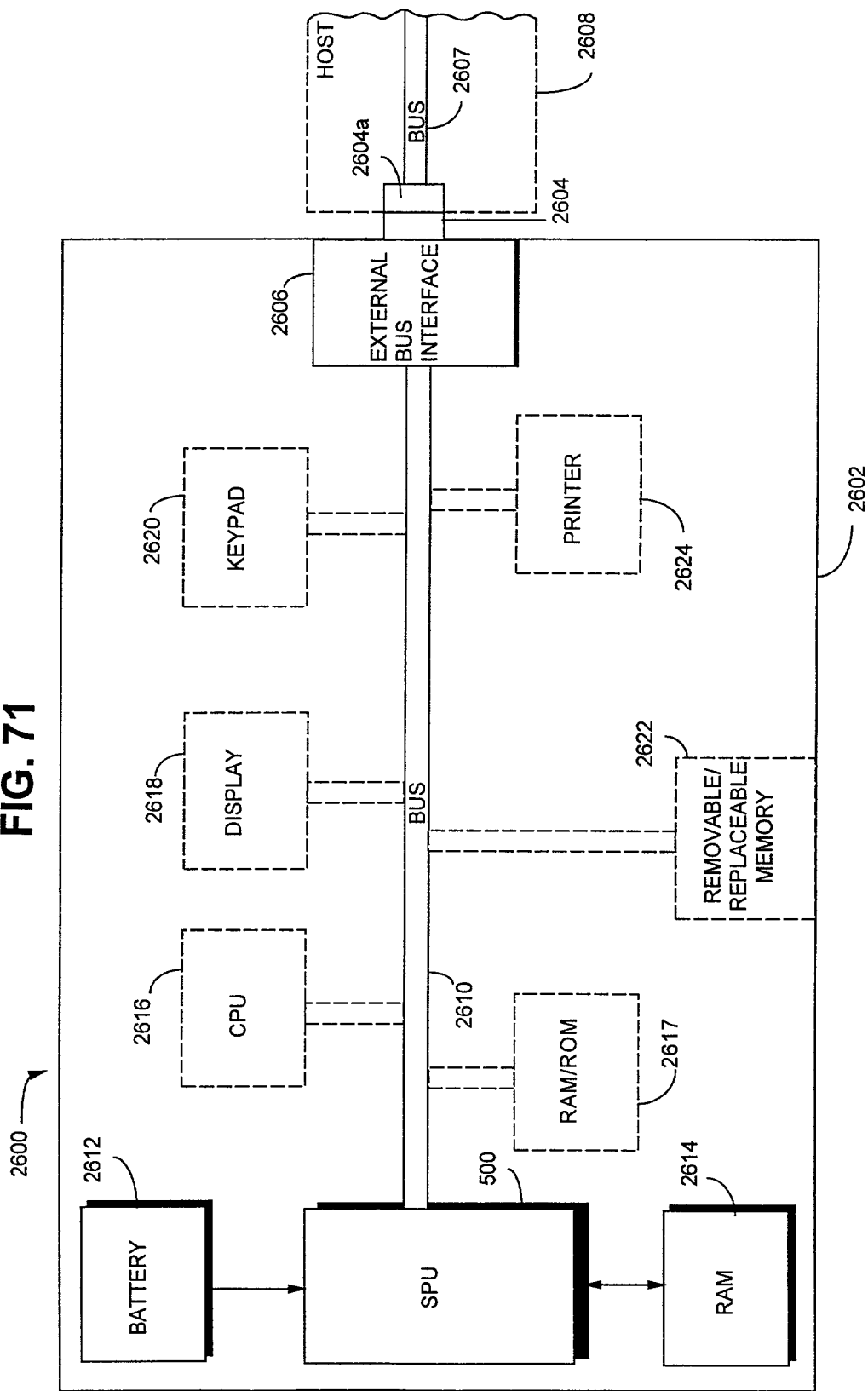


FIG. 70

FIG. 71



LOG IN USER INTERFACE

182

A login interface window with a title bar. It contains two input fields: 'USER NAME:' with the text 'SHEAR, V.' and 'PASSWORD:' with five asterisks. Below the password field is a checkbox labeled 'LOGIN AT STARTUP'. To the right of the input fields are three buttons: 'LOGIN', 'CANCEL', and 'HELP'.

FIG. 72A

FIG. 72B

A dialog box titled 'YOU HAVE REQUESTED THESE PROPERTIES:' with a warning icon. It displays the property name 'LOONEY TUNES NEWS!' and the cost 'Your Cost: \$7.50'. There are three buttons: 'CANCEL', 'APPROVE', and 'SUSPEND'. A 'PROPERTY INFO' button is at the bottom left. A 'MORE OPTIONS' link with a musical note icon is at the bottom right.

FIG. 72C

SET LIMITS:

SESSION DOLLAR LIMIT: \$

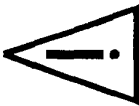
TRANSACTION DOLLAR LIMIT: \$

TIME LIMIT (IN MINUTES):

UNIT LIMIT:

2666 2674 2668 2670 2672

FIG. 72D



YOU HAVE REQUESTED THESE PROPERTIES:

LOONEY TUNE NEWS!

YOUR COST : \$7.50

PROPERTY INFO

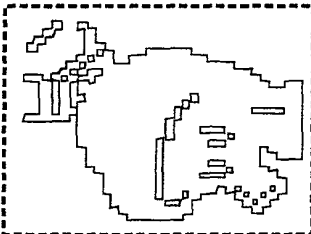
More Options ☒

Show Thumbnail

CANCEL

APPROVE

SUSPEND



| PROPERTY: | SIZE: | PUBLISHER: | AMOUNT: | UNITS: | COST/UNIT: | TYPE: | USE?: | LINKS: | HIST: |
|------------------------|-------|------------------|---------|---------|------------|----------|-------|--------|-------|
| CHUCK JONES BIOGRA... | 256KB | WARNER NEW MEDIA | 64 | KBYTE | \$1.25 | PREVIEW | ✓ | | ● |
| ▼ BUGS BUNNY.JPE... | 1MB | WARNER NEW MEDIA | 1 | RECORD | \$5.00 | DISPLAY | ✓ | | ● |
| BUGS BUNNY.JPEG... | 1MB | WARNER NEW MEDIA | 10 | RECORD | \$3.50 | DISPLAY | | | ● |
| BUGS BUNNY.JPEG... | 1MB | WARNER NEW MEDIA | 25 | RECORD | \$2.50 | DISPLAY | | | ● |
| FRIZ FRELENG BIOGRA... | 256KB | WARNER NEW MEDIA | 120 | SECTOR | \$5.00 | PRINT | | | |
| TEX AVERY BIOGRAP... | 256KB | WARNER NEW MEDIA | 50 | PERCENT | \$2.50 | COPY | | | |
| ► DUCK! RABBIT! DU... | 64MB | WARNER NEW MEDIA | 7.0 | MINUTE | \$7.50 | COPY-PRO | | | |
| MEL BLANC BIOGRAPH... | 256KB | WARNER NEW MEDIA | 1 | SPECIAL | \$25.25 | INSTALL | | | |
| LOONEY TUNES DATAB... | 600MB | WARNER NEW MEDIA | 1 | OBJECT | \$2000.00 | ALL | | | ● |

SET LIMITS...

SHOW BUDGETS

ACQUIRE BUDGET...

HISTORY...

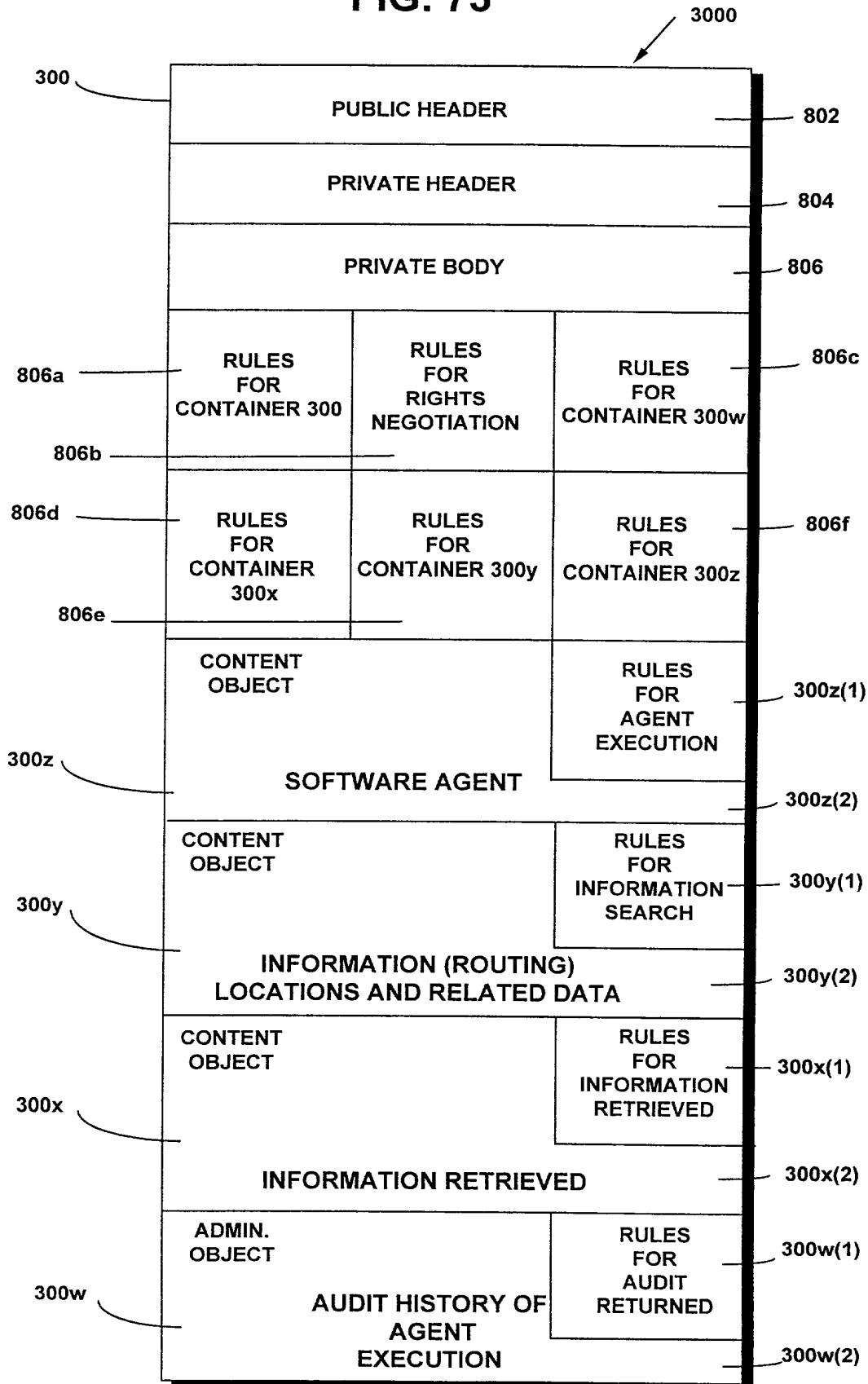
TRANSFER...

PREFERENCES...

FEEDBACK...

HELP!

FIG. 73



102270-02E49260

FIG. 74

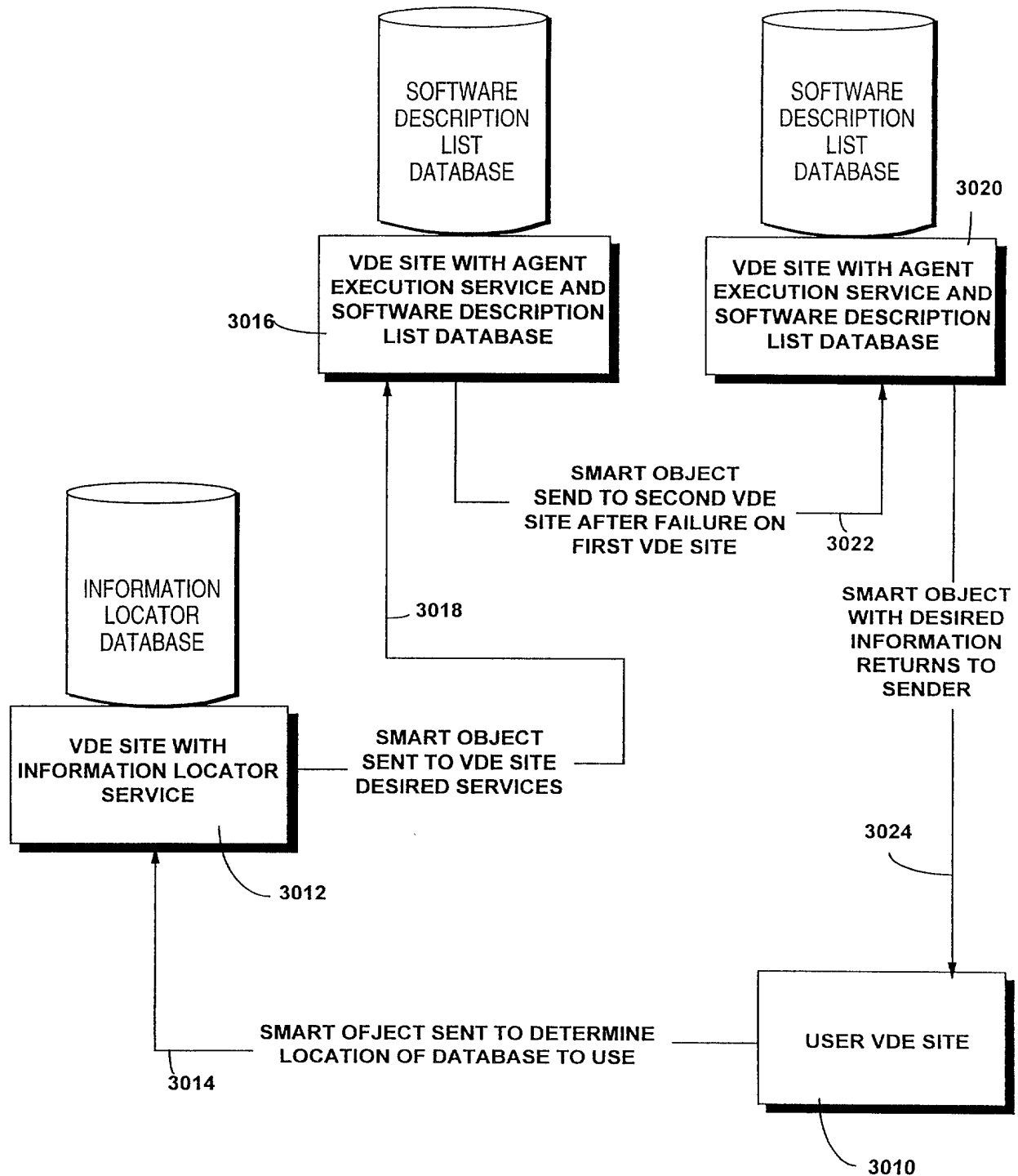


FIG. 75A

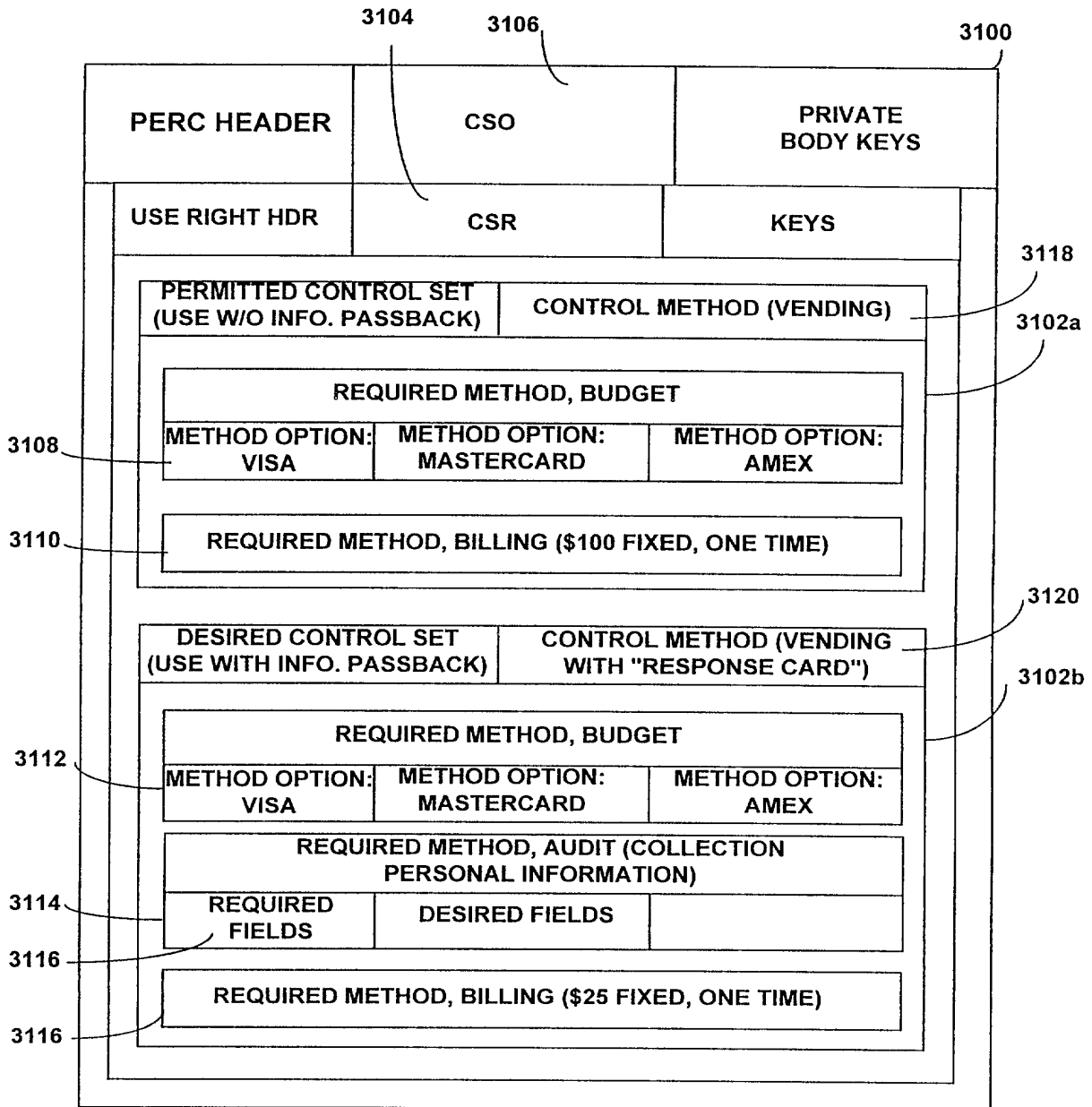


FIG. 75B

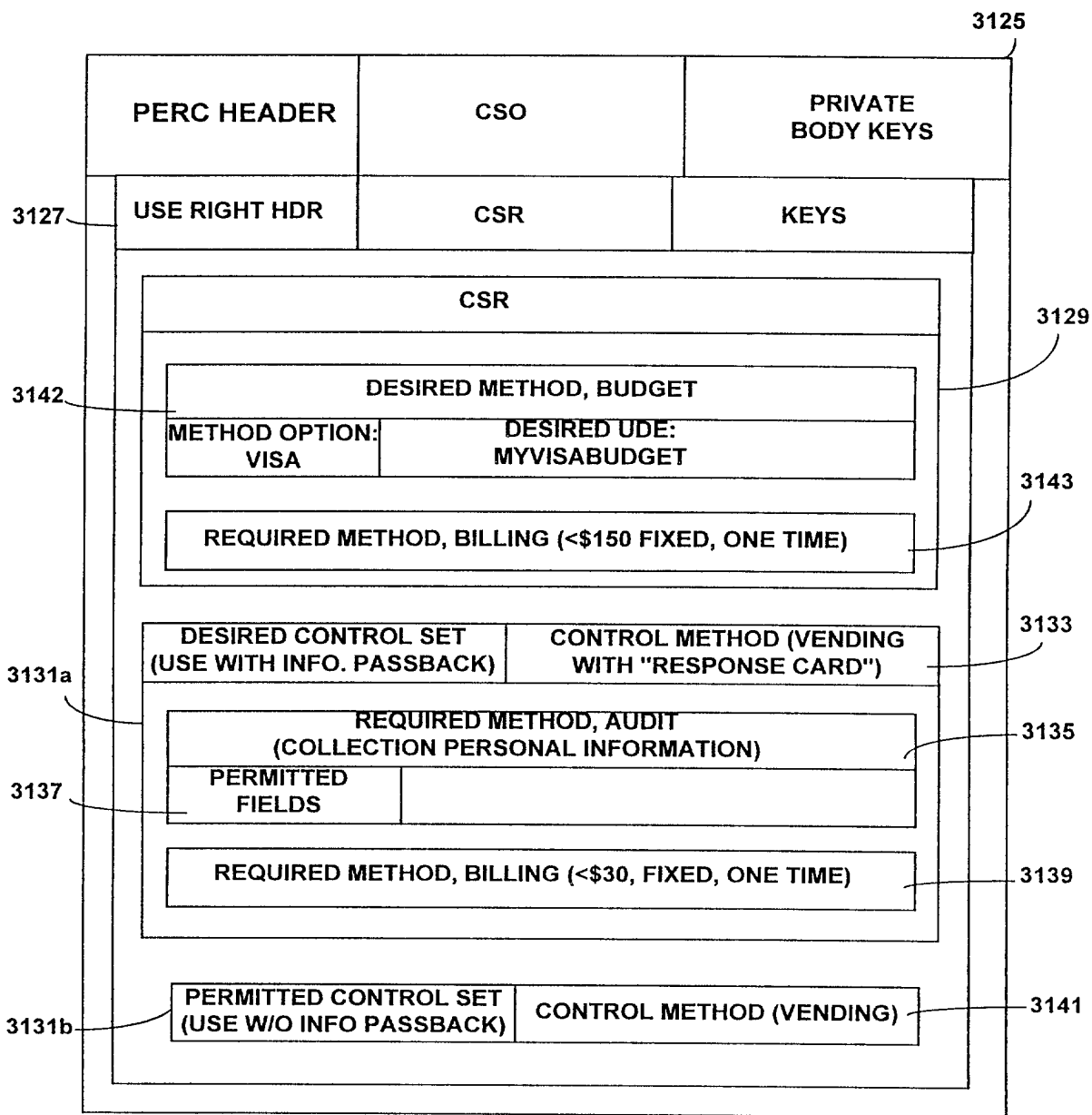


FIG. 75C

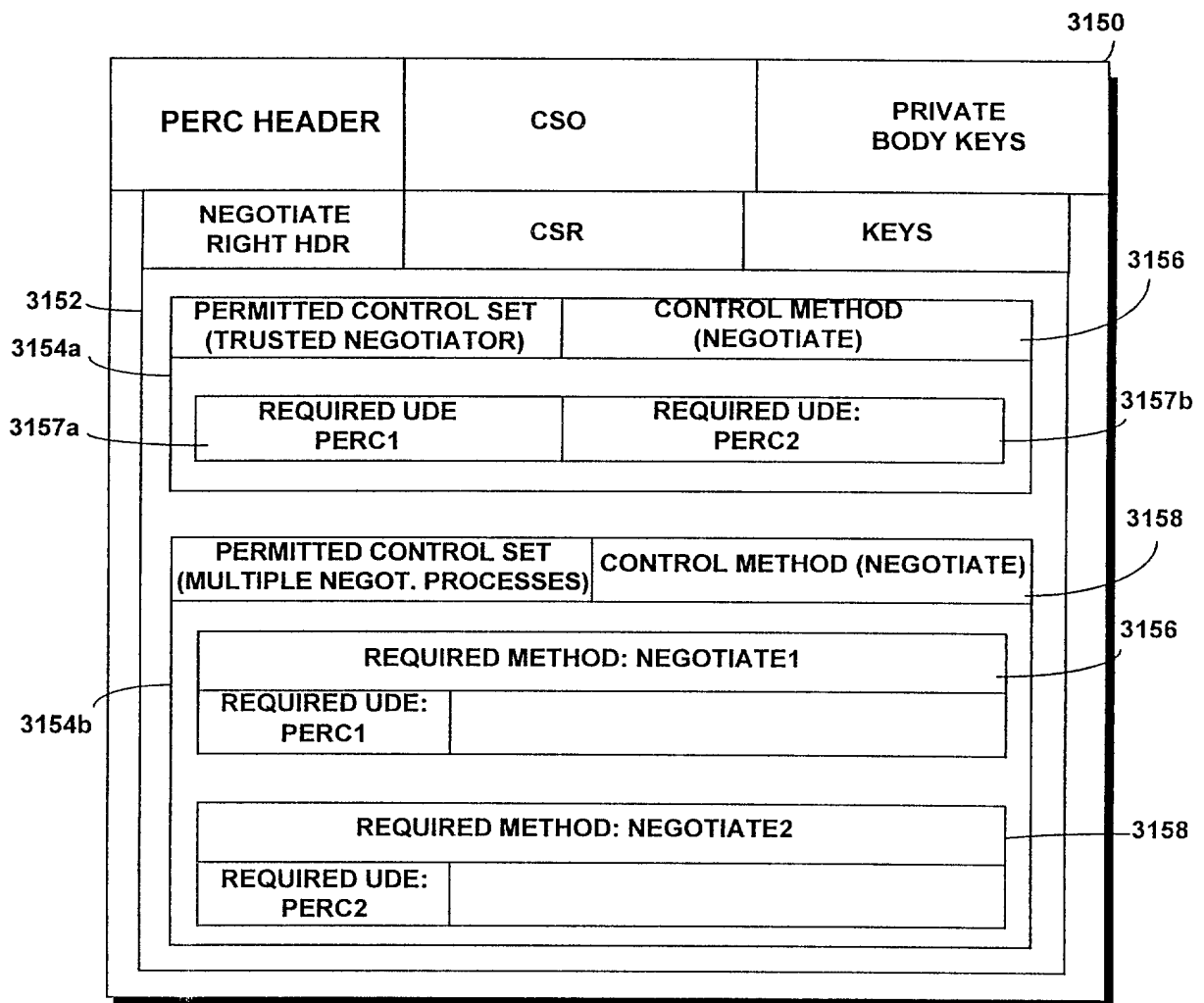
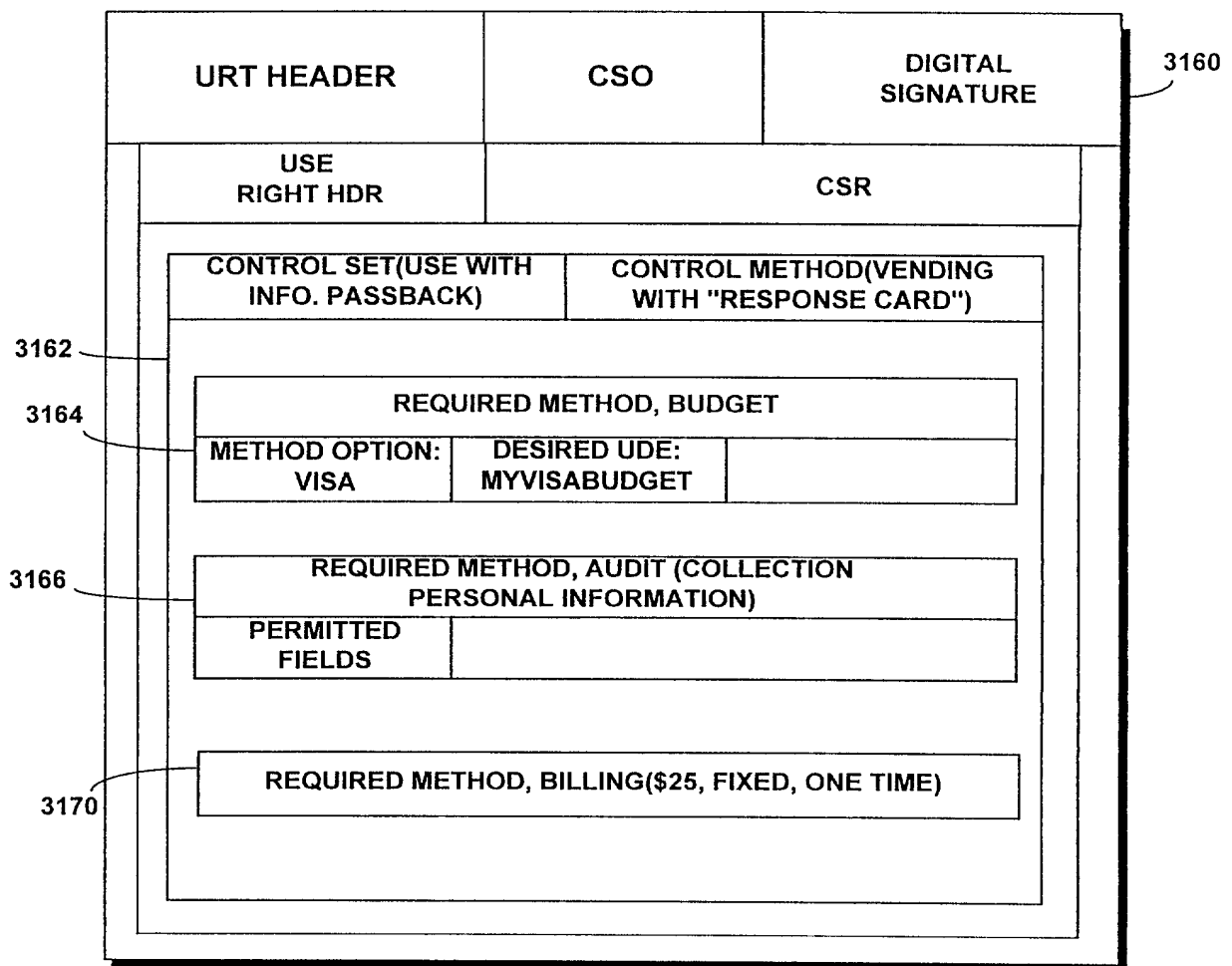


FIG. 75D



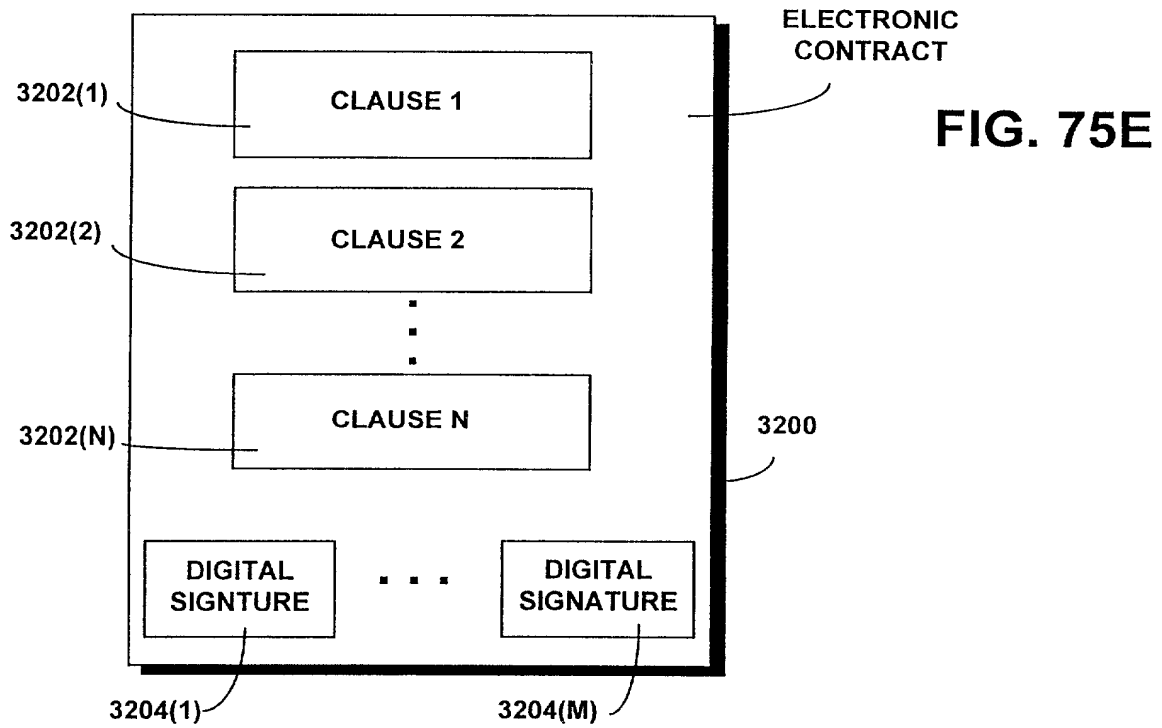


FIG. 75E

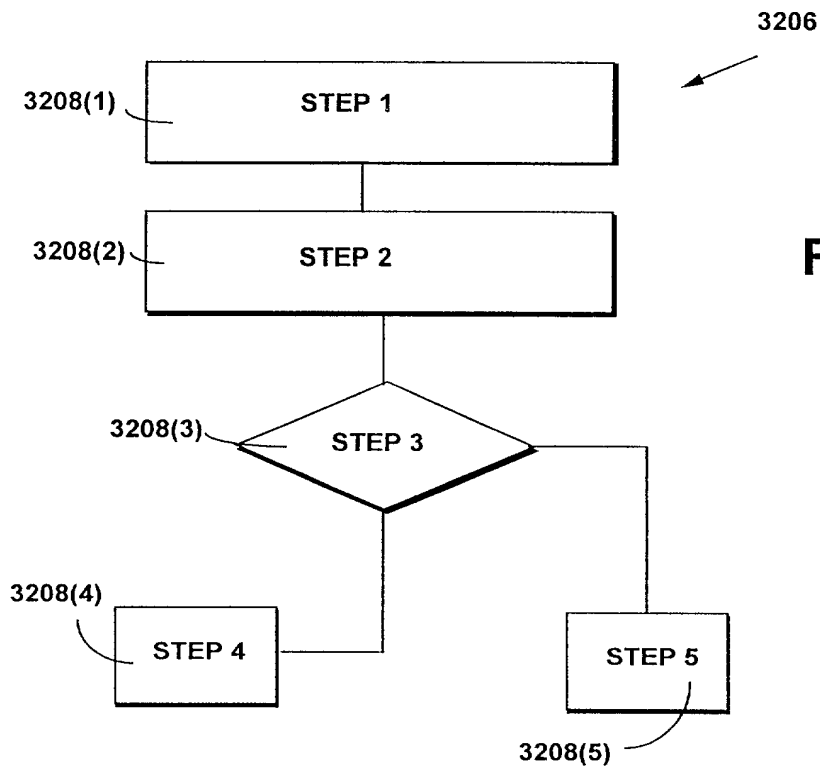


FIG. 75F

FIG. 76A

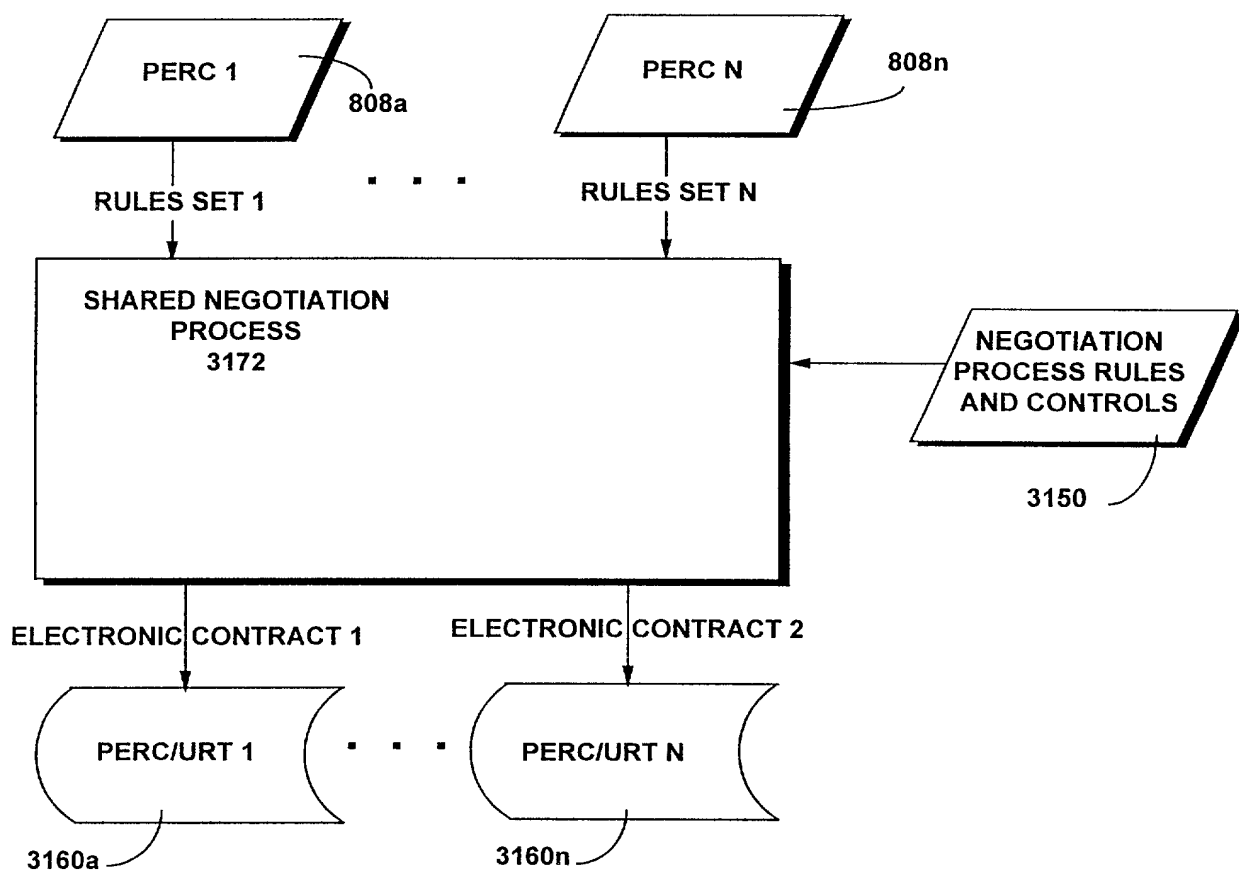


FIG. 76B

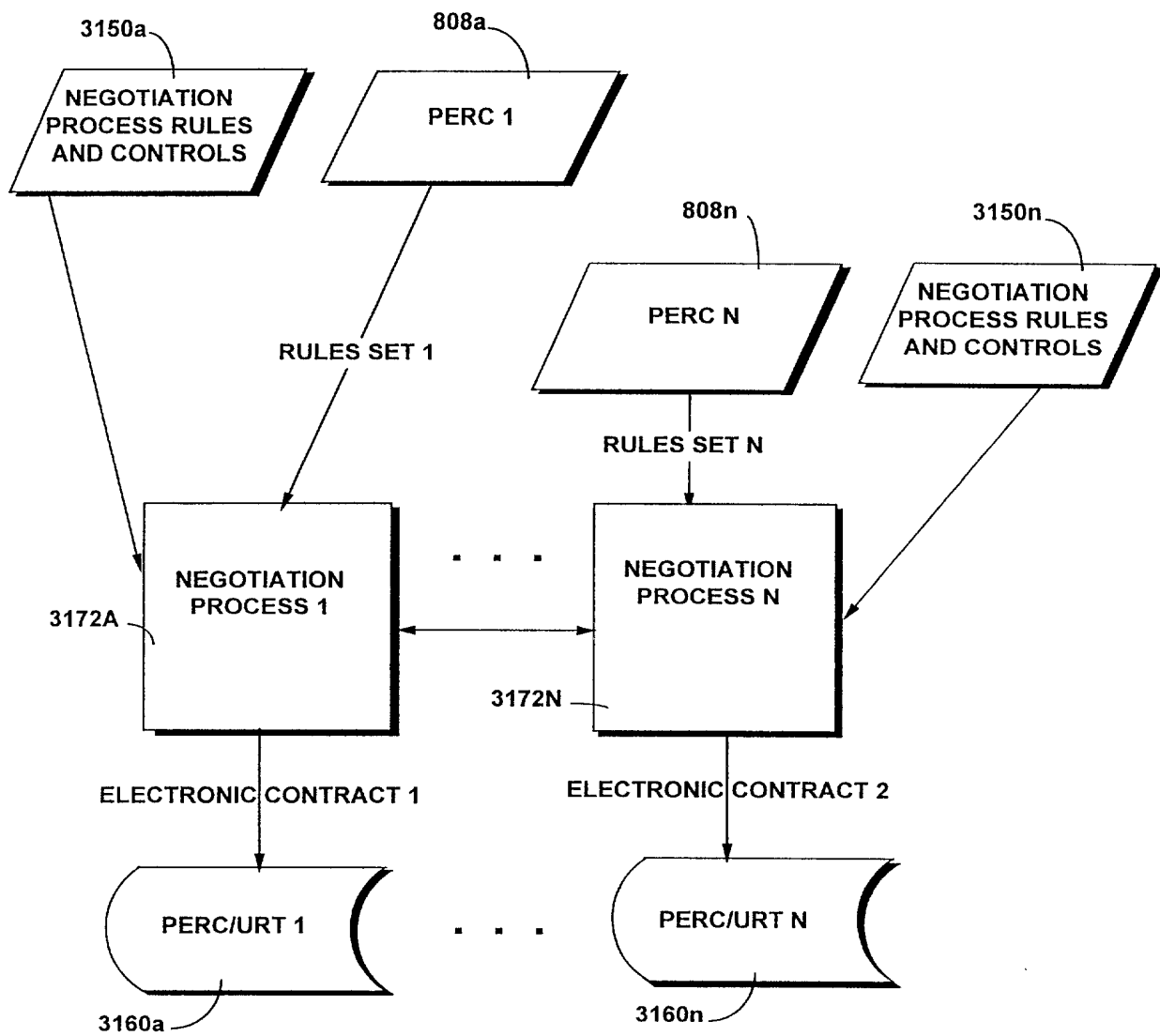
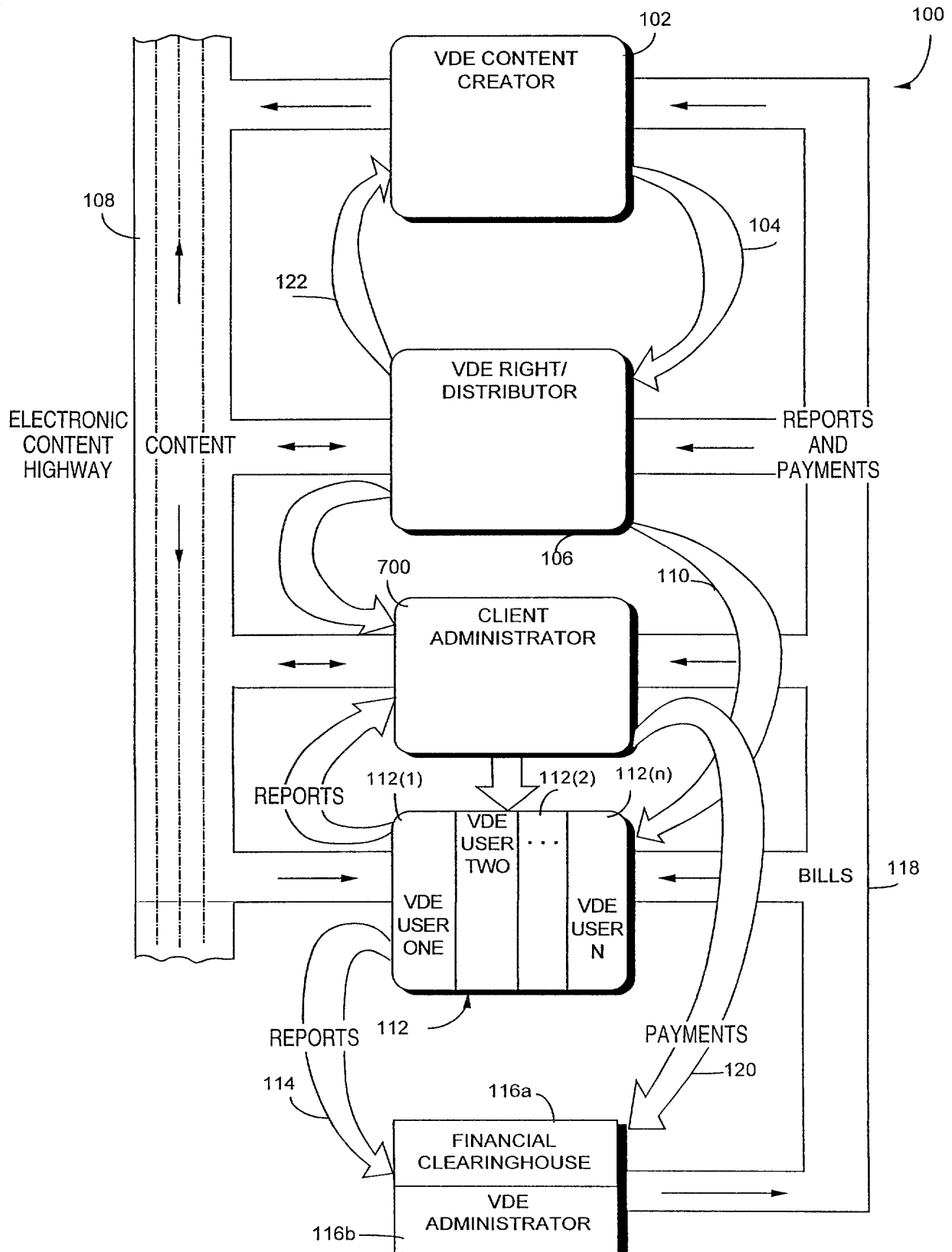


FIG. 77



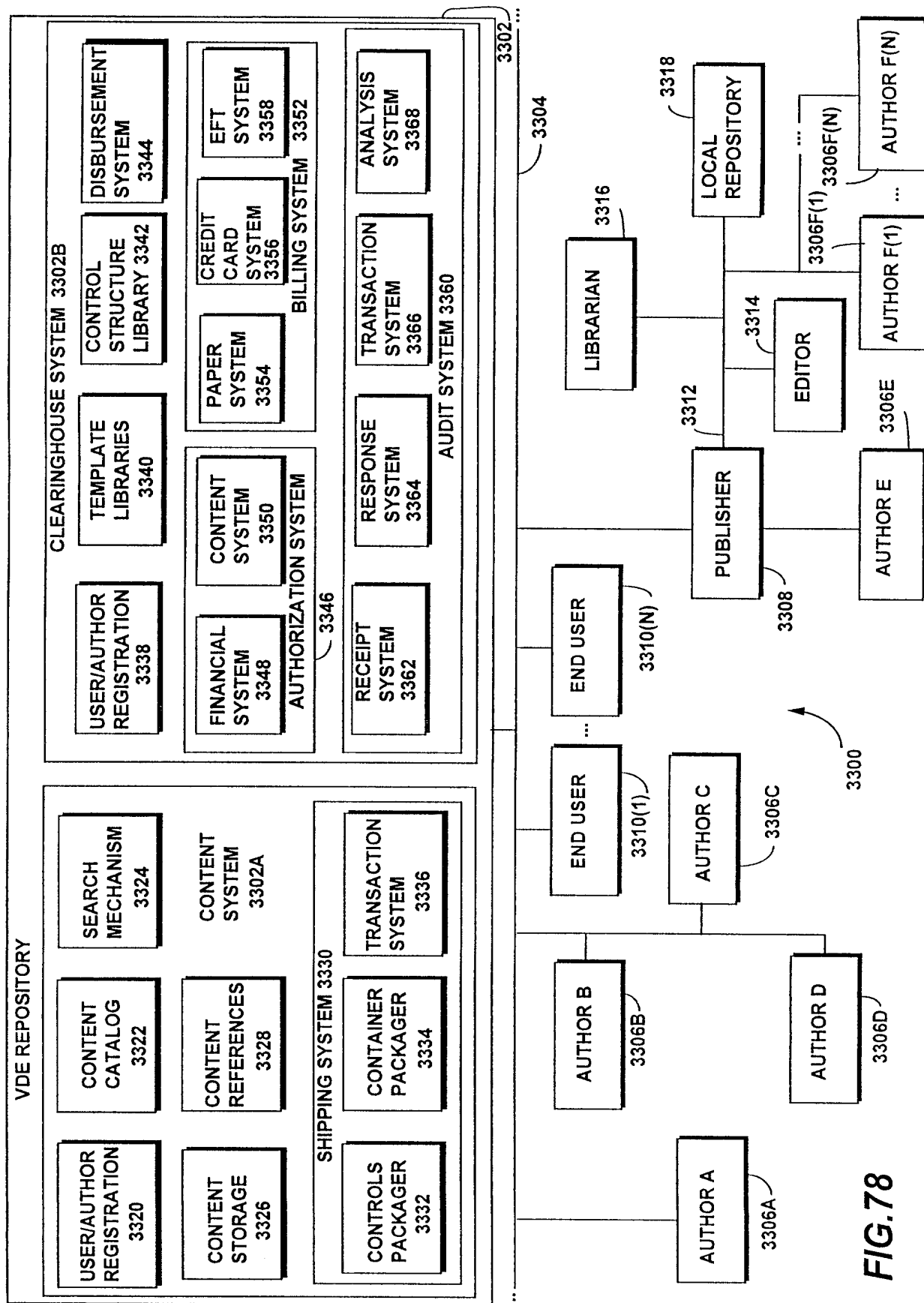


FIG.78

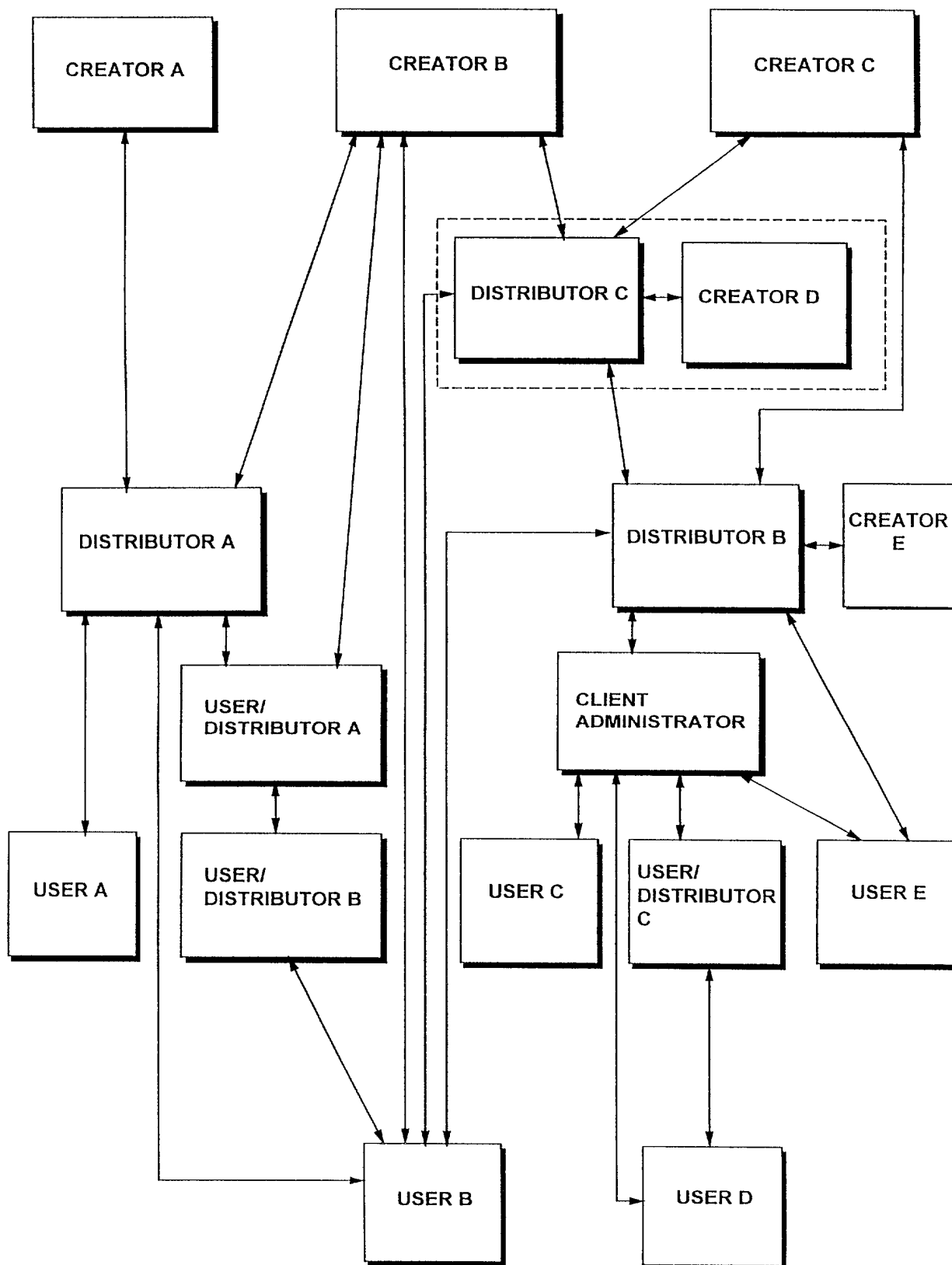


FIG. 80

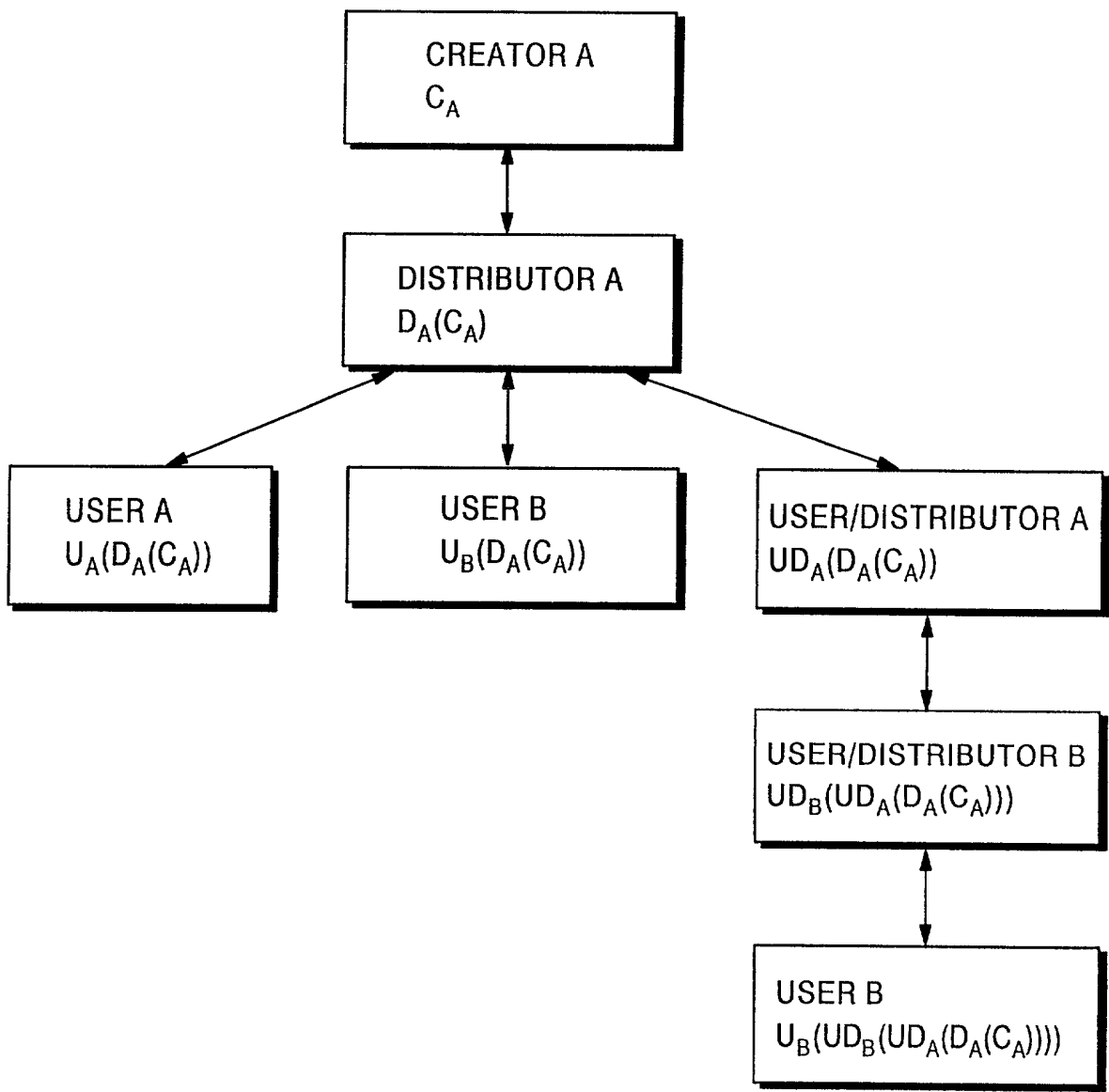


FIG. 81

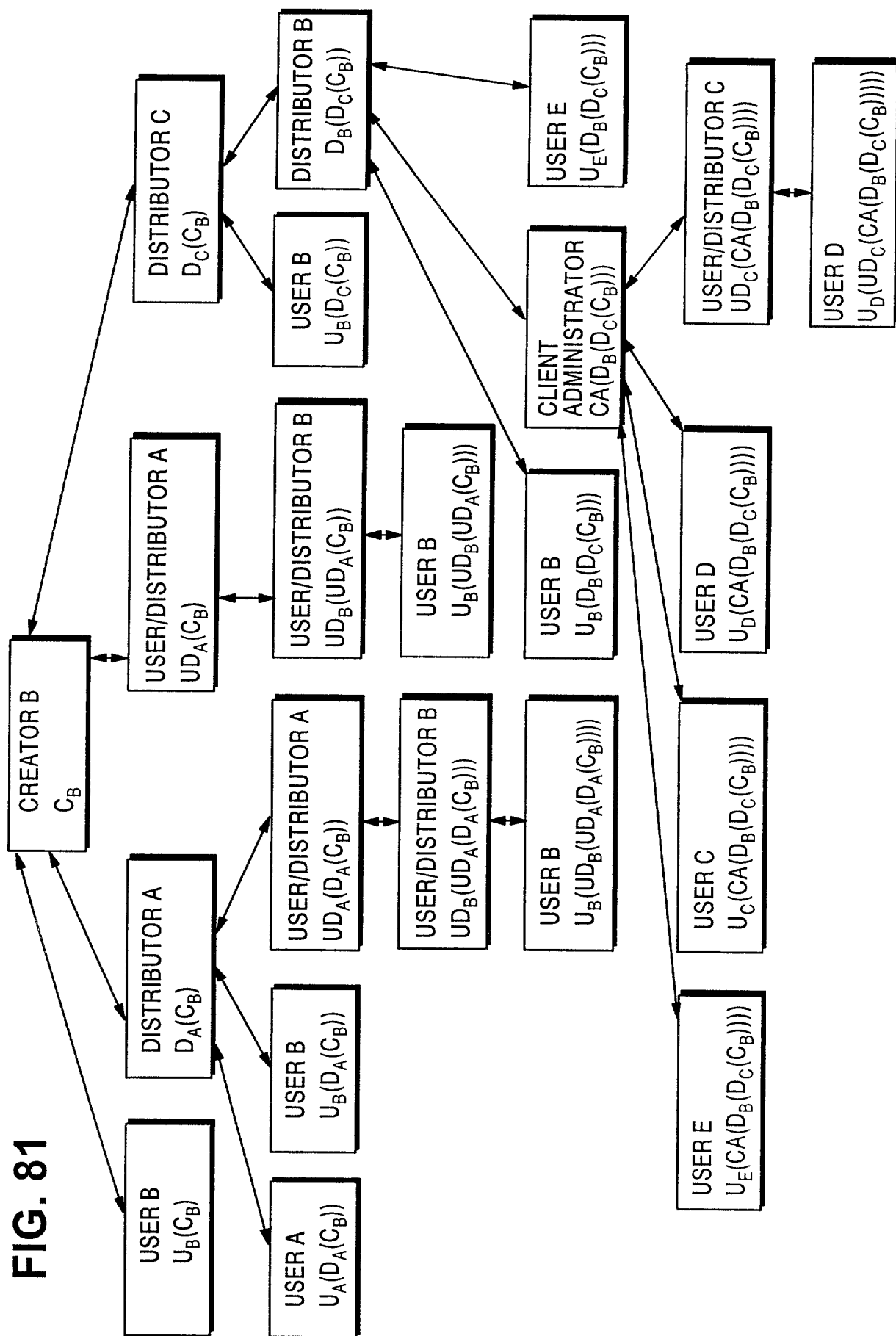


FIG. 82

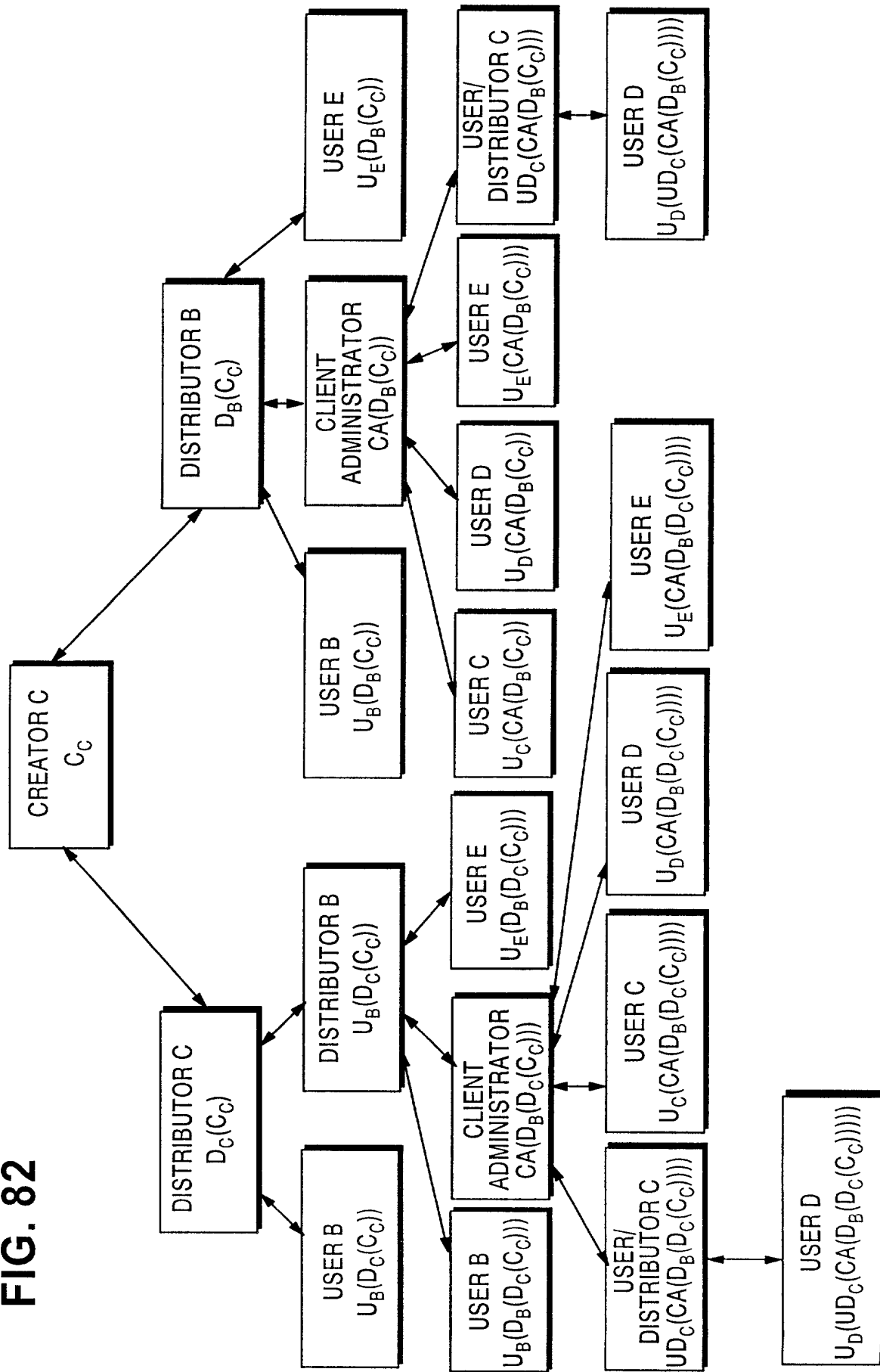


FIG. 83

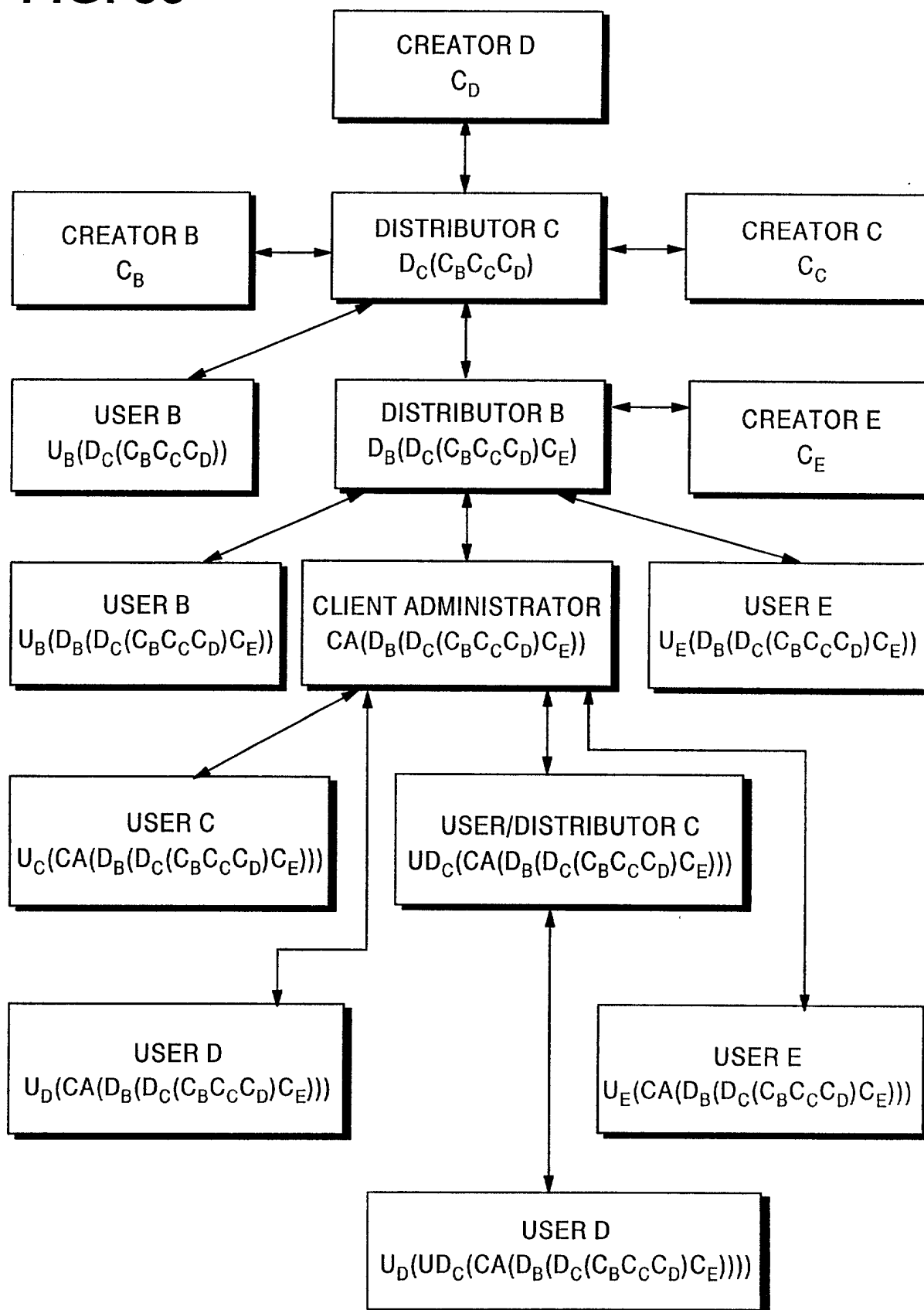


FIG. 84

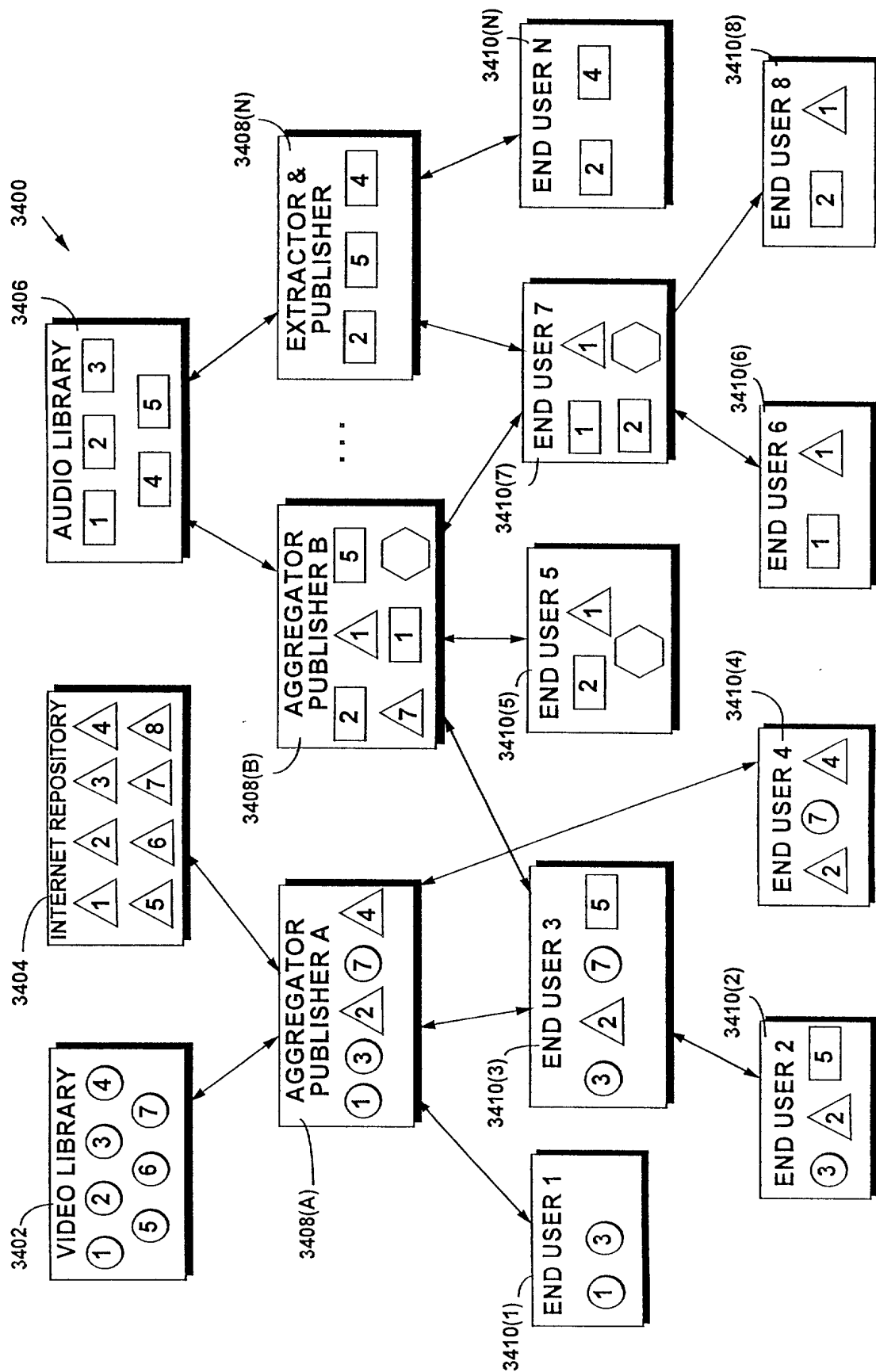


FIG. 85

